



TATA CONSULTING ENGINEERS

26th ANNUAL REPORT 2024-25

Engineering
Excellence
Enabling
Growth

ANNUAL REPORT

2024-2025

Approach to Reporting

This Annual Report has been prepared to address the information needs of all stakeholders of Tata Consulting Engineers (TCE), including investors, customers, suppliers, employees, contractors, industry peers, media, analysts, regulators, and others. It reflects our commitment to transparency, accountability, and value creation, in line with the theme “Engineering Excellence, Enabling Growth.”

Scope of The Report

The Report provides a comprehensive, fair, balanced, and clear account of the performance of all TCE business units for the financial year 2024–25. It covers financial and non-financial information that supports integrated decision-making and long-term value creation.

Management Review

To ensure that the Report presents a coherent view of TCE’s strategy and performance, the content related to our Strategic Framework, Governance, Performance, and Value Creation Model has been thoroughly reviewed by the Senior Management. The review ensures that the Report aligns with our long-term vision and provides a meaningful narrative for stakeholders.

Forward-Looking Statement

This Annual Report, along with other communications issued by TCE, may include forward-looking statements based on current plans, expectations, and assumptions of the Management. These statements may relate to future performance and are subject to risks and uncertainties. TCE has used appropriate language to identify such forward-looking elements where applicable. Actual outcomes may differ materially from those expressed or implied due to various external or internal factors. TCE is under no obligation to publicly update any such statements based on future developments.

Materiality

This Report includes matters that the Senior Management considers material to TCE’s stakeholders. It offers insights into our businesses, the environment in which we operate, and the key activities that influence value creation in the short, medium, and long term. The material topics reflect our strategic priorities and form the basis for our performance narrative.

Reporting Principle

TCE’s reporting approach embraces integrated thinking and follows the guiding principles of the International Integrated Reporting Framework developed by the International Integrated Reporting Council (IIRC), now part of the IFRS Foundation. The Report is also aligned with the disclosure requirements of the Companies Act, 2013. It aims to tell a clear and concise story of how TCE uses its resources, relationships, and capabilities to engineer a better tomorrow for all stakeholders.

In Loving Memory of



Padma Vibhushan
Mr. Ratan N. Tata

28.12.1937 to 09.10.2024

We remember with deep respect and gratitude the remarkable life and legacy of our esteemed Chairman Emeritus, Mr Ratan Tata.

Mr Tata's visionary leadership, humility, and unwavering commitment to integrity and social responsibility have shaped the Tata Group and enriched countless lives. His dedication extended far beyond business, creating a lasting impact on society through compassion, innovation, and purpose.

His leadership was not only a testament to excellence but also an embodiment of ethical values and humanitarian spirit. He taught us to aspire for a future that balances progress with responsibility.

As we reflect on his extraordinary contributions, we are reminded of the timeless values he upheld, values that continue to guide us in building a better, more sustainable future.

His memory will forever inspire us to lead with purpose, innovate with integrity, and work for the greater good.

We Miss You Sir.

Engineering **Excellence** Enabling **Growth**

Past Annual Reports



FY 2019 - 2020



FY 2020 - 2021



FY 2021 - 2022



FY 2022 - 2023



FY 2023 - 2024

Table of Content

Introduction and Overview

About TCE	06
Sectors & Services	07
Year at a Glance	08
Project Footprint	10

Leadership Messages

Chairman's Statement	12
MD & CEO's Message	14
COO Statement	18

Governance and Management

Management Team	20
Corporate Governance	21
Enterprise Risk Management and Compliance	27
Ethics	34

Strategic Insights

Strategy Update	36
Value Creation Model	38
Technology Update	40

Business Performance Reviews

Infrastructure Business Review	44
Power Business Review	48
Hydrocarbons and Chemicals Business Review	52
Mining and Metallurgy Business Review	56
Project Management Consultancy Business Review	60
Digital and Advanced Technology Business Review	64
Ecofirst Business Review	68
Tata Consulting Engineers USA, LLC Business Review	72

People, Recognition, and Community

Human Resource	76
Company Awards	81
CSR	82

Enabling Excellence Engineering Growth

Tata Consulting Engineers Limited (TCE) stands at the intersection of engineering expertise and purposeful growth. For over six decades, TCE has shaped complex projects and pioneered solutions that go beyond conventional consultancy to create measurable impact for industries, communities and economies.

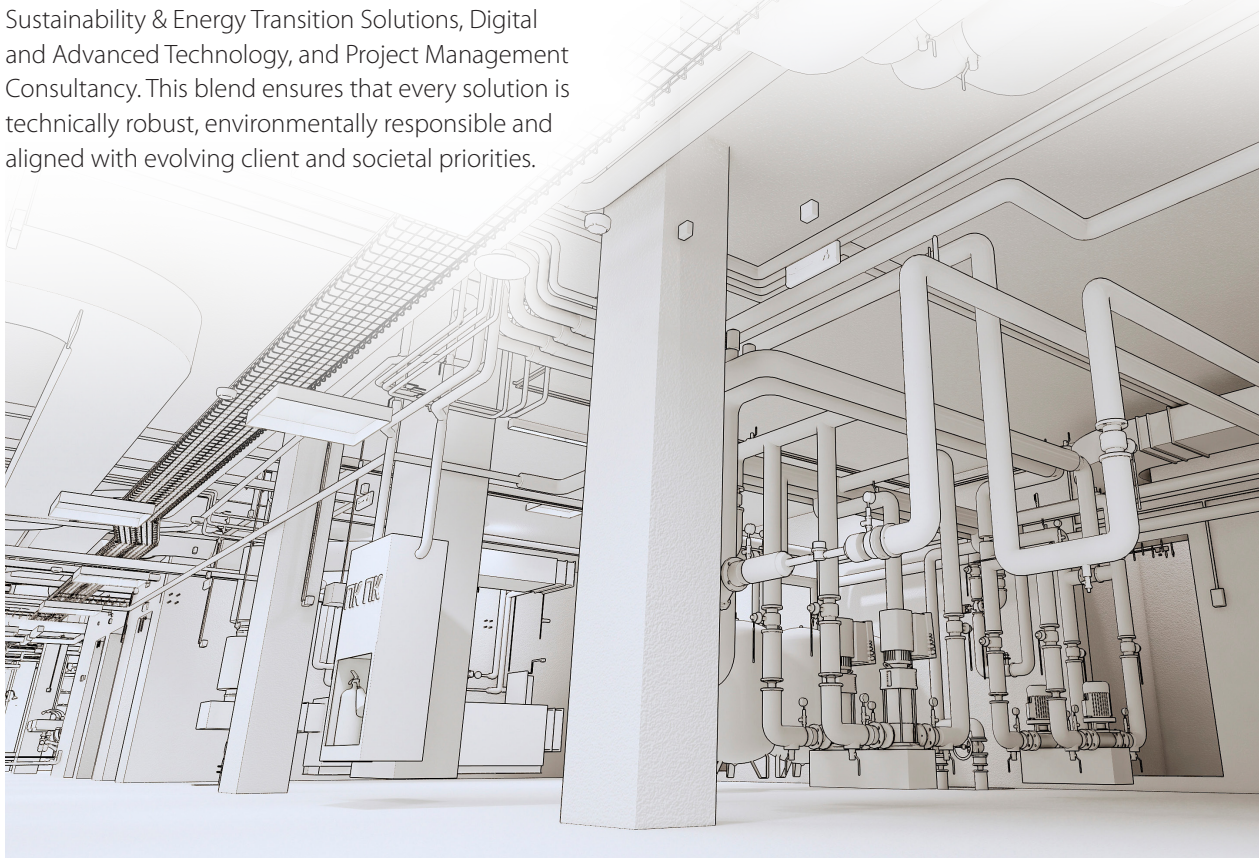
Operating through four strategic sectors: Power, Hydrocarbons & Chemicals, Metals & Mining, and Infrastructure, TCE brings together deep domain knowledge with a forward-looking approach. The company's work spans some of the most critical areas of development, from strengthening urban infrastructure and advancing industrial systems to enabling the global energy transition.

TCE's services are designed to deliver end-to-end project outcomes. Its offerings include Design Engineering, Sustainability & Energy Transition Solutions, Digital and Advanced Technology, and Project Management Consultancy. This blend ensures that every solution is technically robust, environmentally responsible and aligned with evolving client and societal priorities.

At the heart of TCE's operations is its Owner's Engineer and Project Consultant (OEPC™) model. This approach integrates vision with execution, ensuring projects maintain integrity from concept to commissioning, with rigorous attention to quality, safety and long-term value creation.

With over 12,000 projects delivered across 65+ countries, TCE has built a reputation for engineering progress with purpose. Leveraging digital tools such as AI and digital twins, embedding sustainability frameworks, and aligning with global goals, TCE is helping industries, governments, and institutions navigate change with confidence.

Every milestone reflects a clear commitment: Engineering Excellence, Enabling Growth for clients, for the nation, and for the future.



Sectors and Services

Who We Serve

Power Sector

Nuclear, Hydroelectric, Renewable, Thermal , Transmission & Distribution, Advanced Facilities

Infrastructure Sector

Water, Built Environment, Transportation, Sustainable Infrastructure, Advanced Facilities

Hydrocarbons & Chemicals Sector

Green & Sustainable Chemicals, Chemicals & Speciality Chemicals, Refineries & Petrochemicals, Agrochemicals & Fertilisers, Advanced Facilities

Mining & Metallurgy Sector

Ferrous Metals , Non-Ferrous Metals, Mineral Beneficiation, Advanced Facilities

What We Offer

Design & Engineering

Project Concept Development, Pre-feasibility & Feasibility Reports, Detailed Project Reports, Environmental Study Reports, System Studies, Basic Engineering, Frontend Engineering Design (FEED), OE Services, Detailed Engineering

Sustainability and Energy Transition Solutions

Clean and Renewable Energy, Green Infrastructure, Green Fuels and Chemicals, Green Steel & Cement, Energy Transition Technologies

Project Management & Safety

Owner's Engineer & Project Controls, Engineering Procurement and Construction Management, Construction Management and Supervision, Project Management, Program Management, Inspection and Expediting, Safety and Quality Management, Outage & Opex Management, Procurement Management

Digital & Advanced Technologies

Unified 3D Engineering, 4D, 5D Simulation, Building Information Management, Asset Digitisation & Asset Information Management, Industry 4.0 & Asset Performance Management, Product Engineering - Design and Analysis, Turnkey Machine Development

Year at a Glance

Financial Capital

2,092_{cr}

Total consolidated income

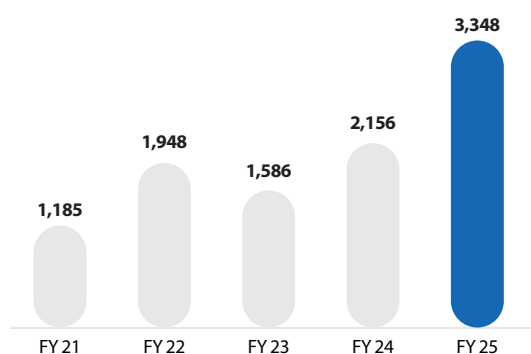
3,348_{cr}

Total consolidated business acquisition

49%

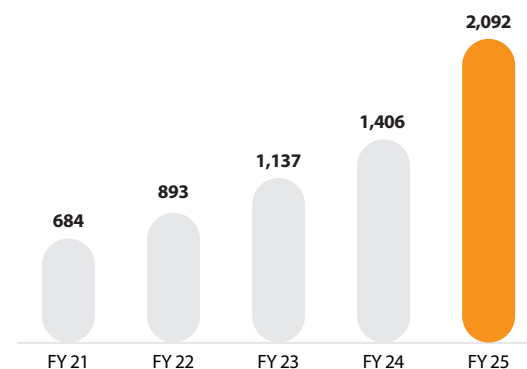
Growth in income over previous year

Total consolidated business acquisition



(Figures in ₹ Cr)

Total consolidated income



(Figures in ₹ Cr)

Human Capital

90%

Billable

7,759

Workforce on 31st March 2025

10.4%

Attrition

08 years

Average experience

10.4 person days

Training

18%

Women



Manufactured Capital

23

Project, sales and branch offices

5.3

 + lakh sq. ft.

Office space



Intellectual Capital



68

Papers & articles published

08

New technology offerings

03

New templatisation solutions

8,459

 Cr

Value additions for customers

7

Patents

08

New service offerings

Social & Relationship Capital

4,028

Volunteers

4.4

 Cr

Invested

20,071

Volunteering hours

4.5

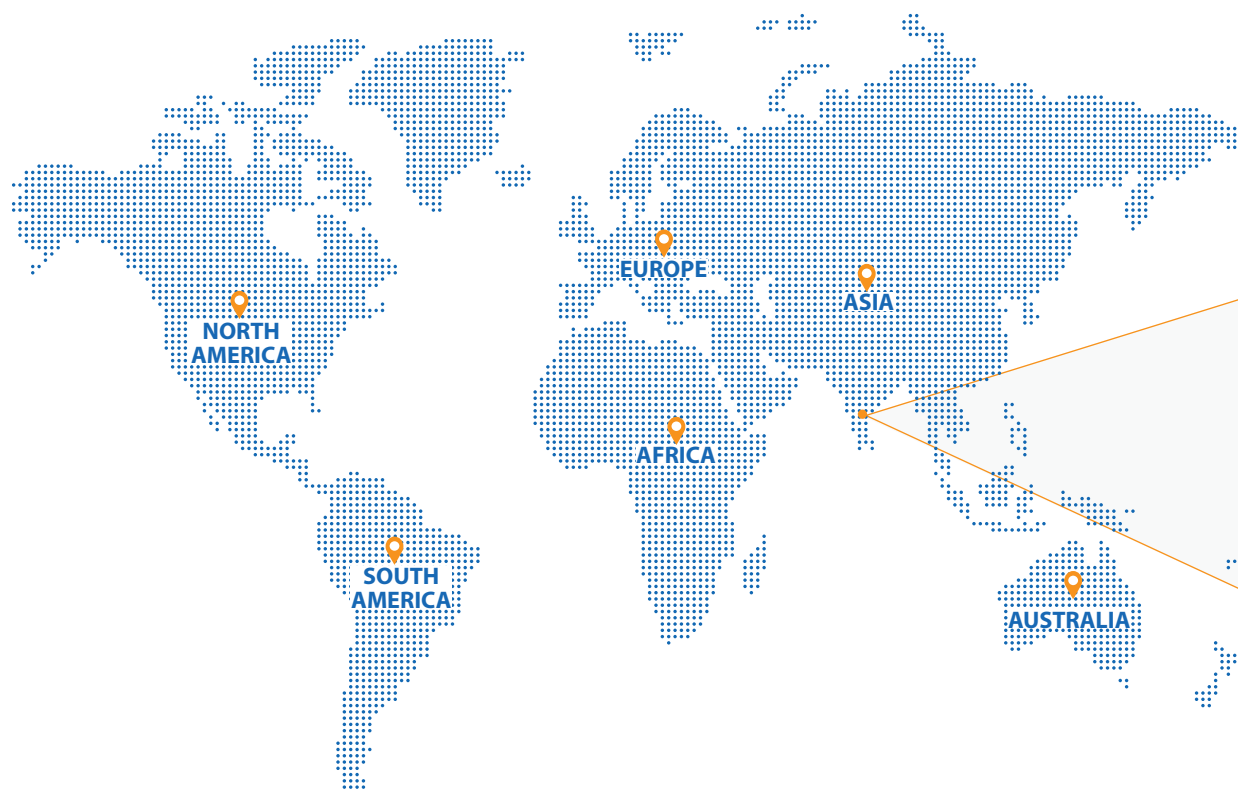
Per capita volunteering hours

Natural Capital



At TCE, we focus on using resources wisely and running our operations efficiently to reduce our impact on the environment. As a consulting company, we help clients make sustainable choices by offering technology-driven solutions that support the conservation of natural resources. Through smart design and innovative practices, we aim to lead by example in protecting the environment.

Project Footprints



North America

1. Canada
2. Mexico
3. USA

South America

4. Brazil

Europe

5. France
6. Germany
7. Italy
8. Netherlands
9. Portugal
10. Spain
11. Switzerland
12. Turkey
13. UK
14. Ukraine
15. Algeria
16. Congo
17. Egypt
18. Ethiopia
19. Ghana
20. Kenya
21. Liberia
22. Libya
23. Malawi
24. Mauritania
25. Mauritius
26. Mozambique
27. Nigeria
28. Rwanda
29. Senegal
30. Seychelles
31. Sierra Leone
32. South Africa
33. Sudan
34. Tanzania
35. Uganda
36. Zambia

Africa

Australia

37. Brisbane
38. Sydney

Asia

39. Bahrain
40. Bangladesh
41. Bhutan
42. China
43. Fiji Islands
44. India
45. Indonesia
46. Japan
47. Jordan
48. Kuwait
49. Laos
50. Lebanon
51. Malaysia
52. Myanmar
53. Nepal
54. Oman
55. Philippines
56. Qatar
57. Saudi Arabia
58. Singapore
59. South Korea
60. Sri Lanka
61. Thailand
62. UAE
63. Uzbekistan
64. Vietnam
65. Yemen

65%

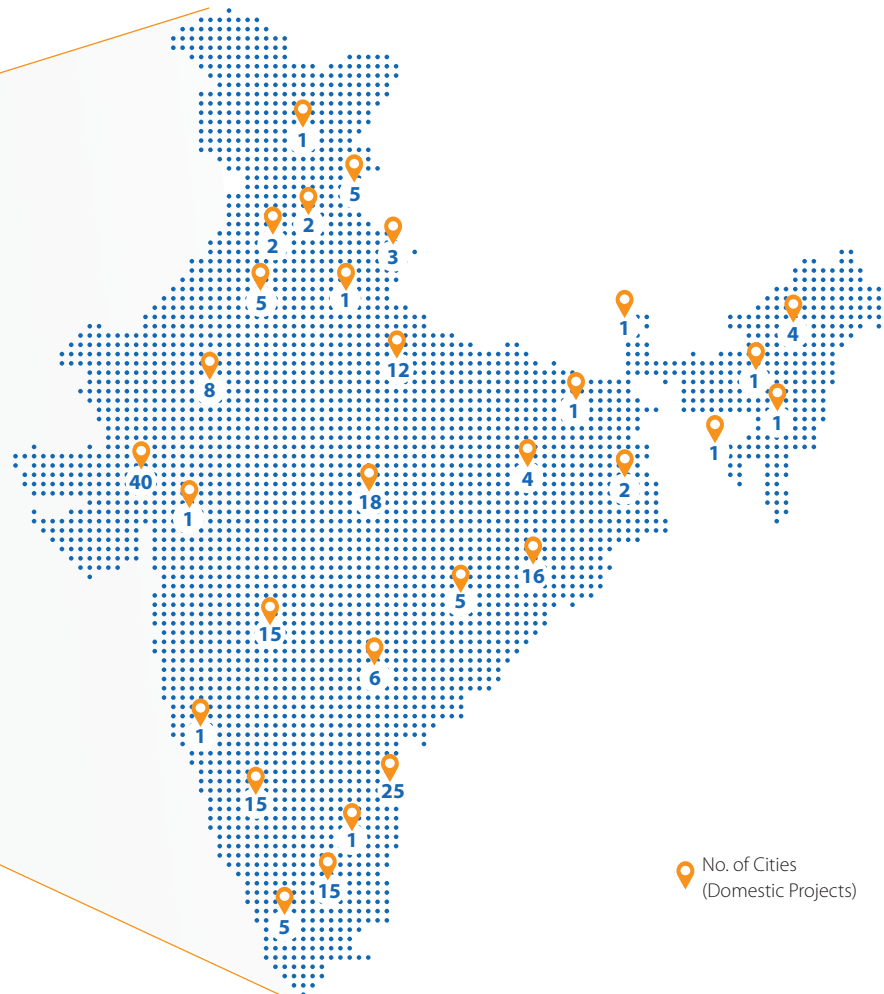
India share of
Total revenue

35%

International share
of total revenue

217

Indian
Cities



India States

- | | | |
|-------------------|---------------------|-------------------|
| 1. Andhra Pradesh | 8. Himachal Pradesh | 15. Meghalaya |
| 2. Assam | 9. Jharkhand | 16. Mizoram |
| 3. Bihar | 10. Karnataka | 17. Nagaland |
| 4. Chhattisgarh | 11. Kerala | 18. Odisha |
| 5. Goa | 12. Madhya Pradesh | 19. Punjab |
| 6. Gujarat | 13. Maharashtra | 20. Rajasthan |
| 7. Haryana | 14. Manipur | 21. Sikkim |
| | | 22. Tamil Nadu |
| | | 23. Telangana |
| | | 24. Tripura |
| | | 25. Uttar Pradesh |
| | | 26. Uttarakhand |
| | | 27. West Bengal |

Union Territory

28. Chandigarh
29. Dadra & Nagar Haveli
30. Delhi
31. Jammu and Kashmir
32. Ladakh
33. Puducherry

Chairman's Statement

“

At Tata Consulting Engineers, our purpose of Engineering a Better Tomorrow continues to guide every endeavour. This year's progress, from our expansion into new markets to delivering on national priorities in sustainability and technology, reflects our unwavering commitment to integrated, value-driven engineering. With deep domain expertise, a trusted OEPC™ model, and a people-first culture rooted in Tata values, we are well-positioned to support global industry in its transition towards a cleaner, smarter, and more resilient future.

L. Krishnakumar
Chairman



I am pleased to present this Annual Report of Tata Consulting Engineers Limited for the year 2024 to 2025.

This year has been marked by meaningful progress and strategic choices. Under the theme Engineering Excellence, Delivering Growth, TCE has reinforced its reputation as a trusted partner for complex, high-value engineering projects in India and internationally. The company's integrated OEPC™ model continues to deliver end-to-end solutions with quality, rigour, and technical depth that stand out in the industry.

One of the most significant achievements this year was the acquisition and integration of CDI Engineering Solutions in the United States. This strategic move strengthens TCE's delivery presence in North America and brings over seventy years of specialised experience in chemicals, oil and gas, and industrial manufacturing. It is not simply an expansion of markets but an investment in complementary capabilities and expertise. Under Project PLUS+, TCE is creating a unified identity that offers clients consistent quality and local delivery backed by global best practices. This acquisition is a clear step in TCE's vision to become a truly global engineering consulting firm.

TCE's financial performance in 2024 to 2025 has been strong and disciplined. The company recorded total revenue of **₹ 2033 crore**, growing from ₹ 1355 crore in the previous year. Profit before tax rose to **₹ 368 crore**, compared to ₹ 293 crore last year, reflecting effective execution, cost management, and high-value project wins. The successful first year of CDI integration contributed **₹ 221 crore** in revenue, adding strength and diversity to the overall portfolio. TCE also maintained a healthy order book of **₹ 2958 crore** at year end, ensuring strong visibility for future growth. The company's entry into new geographies such as Australia and the Philippines, along with deeper engagements in North America and the Middle East, further diversified revenue streams and strengthened its global presence.

During the year, TCE demonstrated its ability to deliver on national and global priorities. The company supported India's ambitions for high-tech manufacturing with projects in semiconductors, batteries, solar modules, industrial glass, and green chemicals. It played a key role in advancing urban infrastructure with sustainability at its core, including projects such as the IIT Bombay campus and the Nag River Pollution Abatement Project.

In the power sector, TCE continued to maintain leadership with contributions to over 12 gigawatts of thermal power capacity and an 80 percent market share in India's pumped storage plants. Its policy work on Small Modular Reactors and Bharat Small Reactors was acknowledged in the Union Budget, demonstrating its influence on India's nuclear energy strategy.

Looking ahead, the global market outlook presents both opportunities and challenges. As India targets doubling power generation and tripling steel production by 2030, there will be growing demand for resilient urban systems, advanced manufacturing facilities, and sustainable energy solutions. Globally, the energy transition is accelerating, with countries seeking partners who can deliver clean energy infrastructure, reduce carbon footprints, and ensure energy security. Industries worldwide are under pressure to decarbonise and adopt advanced technologies, creating demand for specialised engineering consulting with deep domain knowledge and execution ability. TCE's capabilities in renewable energy, nuclear, hydrogen, green chemicals, and circular economy solutions position it well to meet these needs.

The company's vision for the coming years is to be a leader in delivering integrated, sustainable, and technology-driven solutions. TCE will continue to invest in core engineering expertise, digital innovation, including AI-enabled knowledge systems, and the development of its people. It will maintain its focus on ethics, safety, and governance, which remain the foundation of its promise to clients and society.

I would also like to recognise the commitment and skill of TCE's people. Their dedication and professionalism uphold the Tata values of trust, quality, and responsibility. On behalf of the Board of Directors, I thank the management team, employees, clients, partners, and all stakeholders for their continued trust and collaboration. I am confident that TCE will continue to deliver on its purpose of Engineering a Better Tomorrow, supporting sustainable growth and prosperity for all.

L. Krishnakumar

Chairman

Tata Consulting Engineers Limited

Managing Director's Statement



“

In a rapidly evolving world, engineering excellence must go beyond technical mastery; it must anticipate challenges, adapt with agility, and deliver lasting impact.

FY 2024–25 was a year in which we pushed boundaries across various sectors, including digital engineering, energy transition, semiconductor, and defence infrastructure. What fuels our growth is not just capability, but our mindset to be responsive, responsible, and ready. This is how we aim to deliver value across every phase of the asset lifecycle, while building a future that is sustainable, inclusive, and engineered to endure.

Amit Sharma

Managing Director & CEO

Engineering Excellence, Delivering Growth

FY 2024–25 has been a defining year for Tata Consulting Engineers Limited. Anchored in our purpose of Engineering a Better Tomorrow, we continued to deliver impact at scale across power, infrastructure, hydrocarbons & Chemicals and mining and metals sectors. Our ability to integrate design excellence with execution rigour across sectors and geographies has reinforced TCE's position as a trusted partner to clients, governments, and industry leaders. This year's theme, Engineering Excellence, Delivering Growth, captures the essence of our journey: delivering quality with consistency, while expanding our capabilities and global footprint. At the heart of this success is our OEPC™ model (Owner's Engineer and Project Consultant), which remains our distinctive approach to delivering end-to-end solutions across the project lifecycle. Whether it is conceptualising India's future manufacturing ecosystems or enabling renewable energy transitions worldwide, we apply this model to engineer value, manage complexity, and deliver results.

Accelerating Sectoral Impact

Our contributions in 2024–25 spanned a wide spectrum of national and global priorities. We supported India's ambition to build a strong high-tech manufacturing base through OEPC services for semiconductors, batteries, solar modules, industrial glass, and green chemical projects. We also led EPCM efforts for key solar-linked manufacturing facilities and helped expand core sectors such as steel and soda ash production. In infrastructure, we contributed to sustainability-led urban development. Our programme management and design support on projects like the IIT Bombay campus and the Nag River Pollution Abatement Project demonstrated our ability to lead multidisciplinary initiatives. We supported large-scale tunnel engineering, urban water systems, and peer reviews, driving cost-effective and future-ready outcomes for complex projects.

In the power sector, we deepened our leadership in both conventional and renewable power. We are contributing to over 12 GW of thermal power capacity development and have continued our dominance in India's pumped storage plant (PSP) segment, maintaining an 80% market share. Globally, we supported hydroelectric power projects in Bhutan & Tanzania, renewable energy projects in Australia and the Philippines, and feasibility studies for sea-based floating solar projects in the Middle East. Our policy work on Small Modular Reactor (SMR) and Bharat Small Reactors (BSR) were acknowledged in the Union Budget, reaffirming our role in shaping India's nuclear energy strategy, which is critical to achieving the vision of Viksit Bharat by 2047.

We also delivered India's first project on Dynamic Line Rating for a 100-kilometre, 400 kilovolt double-circuit transmission line. This initiative was recognised by the government as a key technology option for easing congestion in the national electricity grid. Our sustainability footprint continued to grow, particularly in hard-to-abate sectors. From green steel facilities in Europe to e-waste and copper recycling for the industry, we are enabling responsible industrial growth. These efforts are central to our belief that engineering excellence must be matched by environmental stewardship.

Financial Performance: Sustained Growth with Strong Fundamentals

In the financial year 2024 to 2025, Tata Consulting Engineers recorded healthy growth across all key metrics. Our total revenue reached **₹ 2,033 crore**, which represents an increase from ₹ 1,355 crore in the previous financial year. This growth reflects our continued ability to deliver complex engineering solutions across sectors and geographies while maintaining a strong focus on quality and client satisfaction.

Our profit before tax for the year stood at **₹ 368 crore**, compared to ₹ 293 crore in the previous year. This increase is the result of disciplined execution, careful cost management, and higher-value projects in both domestic and international markets. The contribution of new sectors, along with an improved project mix, has strengthened our financial resilience. The successful acquisition of CDI Engineering Solutions contributed **₹ 221 crore** in revenue during its first year of integration. As the integration deepens, CDI's project pipeline and sectoral expertise are expected to contribute further to our global growth in the coming year.

We maintained a strong order book and stable cash flows during the year. Our Contract Central platform, supported by project analytics and structured reviews, improved visibility and helped drive timely, well-informed decisions. These tools also strengthened cost control, enhanced financial discipline, and supported effective governance across the organisation. Our entry into new geographies such as Australia and the Philippines, combined with deeper engagements in North America and the Middle East, led to stronger revenue streams. Our focus on high-value, technology-intensive assignments allowed us to maintain profitability and increase project complexity without compromising execution rigour. Overall, the year marked a disciplined expansion phase, characterised by increased global relevance and improved delivery margins.

A Strategic Leap: CDI Engineering Solutions

One of the most important milestones this year was the acquisition of CDI Engineering Solutions, a US-based engineering company with over six decades of expertise in chemicals, oil and gas, and industrial manufacturing. This acquisition significantly strengthens our delivery presence in North America and opens new opportunities in global markets. Under the integration initiative Project PLUS+, we have aligned systems, governance models, and leadership structures to drive a unified global identity under the TCE brand. CDI's strengths in industrial engineering complement TCE's project execution and sustainability capabilities. We are now well-positioned to serve clients worldwide, combining regional delivery with global best practices and integrated knowledge systems. This acquisition is not just about expanding our footprint. It signals our aspiration to become a world-class engineering firm, equipped to deliver excellence at scale across sectors and regions.

Digital Innovation: Engineering with Intelligence

AI and digital engineering are playing an increasingly central role in how we design, plan, and deliver value. This year, we made meaningful strides in embedding artificial intelligence and machine learning across our core engineering workflows. We developed and prototyped an intelligent knowledge management system designed to consolidate decades of project data and insights. The system not only enables access to relevant past knowledge but also learns from current project outcomes, creating a continuously improving decision-support framework. In parallel, we piloted AI-powered tools for engineering automation and design optimisation, with a focus on modularity, quality, and speed. Our Basic Building Blocks (BBB) framework supported this transition with structured, reusable design components, improving standardisation and efficiency across disciplines. Together, these initiatives are reshaping how we engineer faster, smarter, and with higher precision.

Building a Strong, Responsible Organisation

People continue to be our most valuable strength. This year, we launched Symphony, our new SAP-based HR platform that streamlines employee lifecycle processes and enhances transparency. We promoted a more inclusive workplace through the Include initiative and continued to build future leaders through the Shikhar programme.

We reinforced our commitment to ethics and compliance with over 17,000 training hours delivered across the organisation. We retained the Advanced maturity rating in the Tata Group's Leadership in Business Ethics assessment for the second consecutive year, highlighting our culture of accountability and value-based decision-making. Our social impact was recognised through national honours, including the TAAP Adoption Award, the Volunteering Award, and our listing among India's Top 25 Safest Workplaces. We also earned recognition for innovation and collaboration through the Innovista and CII Industry-Academia awards.

The Road Ahead

Looking ahead to FY 2025–26, we enter a period of renewed ambition and strategic clarity. India's national targets, including doubling power capacity and tripling steel production by 2030, require engineering partners who can deliver at scale with speed and responsibility. We are ready to meet this challenge.

We will continue to focus on:

- Scalable, low-carbon infrastructure and resilient urban systems
- Advanced energy pathways including nuclear, hydrogen, and ammonia
- Engineering solutions across the semiconductor, solar, and battery ecosystems
- AI-enabled design and knowledge systems that amplify engineering intelligence
- Governance, safety, and ESG systems that ensure sustainable growth

With a stronger global network, integrated delivery models, and a high-performing team, TCE is well placed to shape the future of engineering consultancy. We will continue to apply our excellence to deliver meaningful growth for our clients, our communities, and our country.

I would like to thank all our colleagues, clients, and partners for their support. Let us move forward with purpose and commitment as we continue to build a smarter, safer, and more sustainable future.

Amit Sharma
Managing Director & CEO
Tata Consulting Engineers Limited

Our Pillars of Success

Vision

To be an internationally respected Engineering Consultant offering Comprehensive Solutions

Mission

Provide Technically Excellent and Innovative Solutions, for adding value for all Stakeholders, and Operate Globally as Professional Consulting Engineers

Values

Customer Satisfaction and Loyalty: At TCE, we are committed to understanding and meeting our customers' requirements effectively. We aim to consistently deliver reliable, high-quality solutions, building strong relationships based on trust. By placing customers first, we earn their lasting loyalty.

Technical Excellence with Professional Ethics: At TCE, our engineering work is grounded in technical expertise, innovation, and integrity. We uphold ethical standards in everything we do, ensuring honesty, transparency, and reliability. Our professional approach helps us deliver excellent results that our clients trust.

Responsibility to Society: At TCE, we recognise our responsibility towards society and the environment. Our projects always consider sustainability, safety, and the well-being of communities. By being socially responsible, we contribute positively to the country's progress and the wider world.

Employee Dignity and Self-respect: At TCE, we respect and value every individual employee. We maintain a workplace culture that promotes dignity, respect, and fairness for everyone. By creating a supportive working environment, we help our employees feel confident, motivated, and valued.

Organisational and Individual Growth: At TCE, we encourage continuous growth for both our organisation and each employee. We provide opportunities for learning, career development, and meaningful challenges. By aligning individual goals with organisational objectives, we achieve shared success.



Message from the Chief Operating Officer



At TCE, we believe engineering is more than problem-solving. It is about creating value that lasts. By combining sustainability, digital innovation, and technical depth, we are building legacies that will serve industries and communities for years to come.

B R Parthasarathy

Chief Operating Officer

Tata Consulting Engineers has continued to strengthen its position as a trusted partner in engineering by focusing on innovation, digital transformation, and sustainability. FY25 marked a year of strong business growth, expansion into new sectors, and deeper integration of advanced technologies. Underpinned by a culture of excellence and collaboration, we have taken confident steps towards our long-term vision. This message highlights our progress during the year and outlines the priorities shaping our future direction.

TCE's journey over the past six decades has been defined by resilience, commitment to quality, and a strong belief in purpose-driven engineering. I joined the company in 1991 and assumed the role of Chief Operating Officer in February 2025. This new responsibility comes at a time when TCE is entering an exciting phase of transformation, underpinned by digitalisation, sustainability, and global partnerships. In FY25, we recorded approximately **50 per cent** year-on-year growth in both order acquisition and revenue.

This performance was supported by strong domestic demand and successful conversion of large strategic opportunities across multiple sectors. These included transportation, electronics and semiconductor manufacturing, battery production, green fuels and chemicals, and net zero initiatives. We also deepened our sectoral capabilities by establishing a Dedicated Engineering Cell for a large Technology company and signing long-term collaboration agreements with leading organisations in the chemicals, metals, and mining sectors. Our alliance with a reputed EPC contractor has expanded our role in delivering large steel projects in the Middle East.

Sustainable value creation remains a central focus for TCE. Our delivery processes now incorporate digital technologies, including 3D engineering, Building Information Modelling, and Digital Twin tools. These tools enable us to simulate, monitor, and manage complex projects efficiently, thereby improving transparency and reducing rework.

Our paperless project management systems provide further support for collaboration, speed, and accuracy across all delivery stages.

The acquisition of CDI, a well-established design engineering firm in the United States, was a major highlight of the year. CDI's legacy in plant engineering and its strong capabilities in digitalisation and energy transition align well with our vision. This strategic integration will enable us to deliver enhanced value to global clients by offering comprehensive life-cycle engineering services.

TCE continues to play a significant role in transformative infrastructure projects, such as smart cities, India's first high-speed rail corridor, and indigenous semiconductor facilities. As an experienced Owner's Engineer and Project Consultant (OEPC™), we provide end-to-end support across engineering, procurement, construction, and project management.

Stakeholder communication and employee engagement have also remained strong. Our Corporate Communications team led several campaigns across digital and physical platforms. We shared more than 270 posts and 21 videos through TCE's social media channels, growing our LinkedIn follower base to over 850,000 by March 2025. Internal platforms such as Rhythm, DC Connects, and Chai pe Charcha helped reinforce alignment and two-way engagement across the organisation. Thought leadership was amplified through case studies, technical blogs, and white papers published on our website, Tata World, and Tata EDGE. Our participation in industry forums, such as Vibrant Gujarat and the Green Hydrogen Conclave, has enhanced our visibility as a knowledge-led engineering company.

We also made solid progress in business excellence.

The Business Excellence team has been actively collaborating with various functions to address the areas identified during previous TBEM and Data Excellence assessments. As we prepare for an external assessment in FY26, our efforts are focused and aligned towards achieving the position of Industry Leaders. Improvement programmes under the Rhythm framework have been launched across four tracks: Customer, Operations, People, and Technology. Initiatives such as Safety 2.0, our new HR platform Symphony, and the launch of Tech Hive, our AI-driven knowledge portal, are helping to build a performance-oriented, data-driven culture.

Looking ahead, we are focused on consolidating our recent progress and continuing to expand strategically. We are targeting another **50 per cent** growth in FY26, driven by robust domestic opportunities in infrastructure, renewable energy, defence, and digital manufacturing. Our international footprint will also grow steadily through the CDI platform, supported by a strong ecosystem of global partners and trusted vendors.

Our people remain firmly at the centre of our strategy. With our workforce growing by around **20 per cent** each year, we are significantly investing in talent development, employee engagement, and long-term retention. It is important that our teams remain consistently aligned to TCE's core values of innovation, ethics, and excellence.

We are confident that, with the right blend of technology, capability, and culture, TCE will continue to deliver meaningful solutions that benefit both the industry and society. Our commitment to engineering excellence will remain the foundation of everything we do.



Management Team

BOARD OF DIRECTORS



L. Krishnakumar
Chairman



Dr Alka Mittal
Independent Director



Dr. Kamlesh Nilkanth Vyas
Independent Director



Amit Sharma
Managing Director & CEO

BUSINESS FACING



B R Parthasarathy
Chief Operating Officer



Pravinchandra R Shahu
CIO & Head - Digital



Rajat Kaushal
Head - International Sales
Marketing & Business
Development

BUSINESS ENABLING



Sridhar Radhakrishnan
Chief Financial Officer



Rajeev Tanna
Head – Risk Management,
Internal Compliance & Strategy



Atul Choudhari
Chief Technology Officer



Sachin Mishra
General Counsel & Company
Secretary



Nidhi Mehendiratta
CHRO & Head - CSR & Ethics

SUBSIDIARIES



Steve Karlovic
President & CEO,
Tata Consulting Engineers USA, LLC



Chitrnanjan Kaushik
Chief Executive Officer, Ecofirst



Aslam Basha
General Manager, Tata Engineering
Consultants Saudi Arabia

Corporate Governance

Tata Consulting Engineers Limited (hereinafter referred to as "TCE" or "Company") has a strong legacy of following fair, transparent and ethical governance practices. Our Board of Directors and Management Committee comprising of enlightened leaders, work together to drive the core values that form TCE's guiding philosophy that good governance is an essential element of business, which helps the Company to fulfil its responsibilities for all its stakeholders. TCE's Corporate Governance traits include ethical business conduct, commitment to values and integrity, which enhance and retain stakeholders' trust. The Management Committee takes business decisions in consultation with the Board.

Company's Philosophy on Corporate Governance

Good Governance practices are rooted in the culture and mindset of the organisation. The Company considers fair and transparent Corporate Governance as one of its core management tenets.

TCE follows the best governance practices with highest integrity, transparency and accountability. Strong leadership and effective Corporate Governance practices have been the Company's hallmarks which are inherited from the Tata culture and ethos.

The Company has a strong legacy of fair, transparent and ethical governance practices. The Company has adopted a Code of Conduct for its employees, including the Managing Director.

As per Section 149 of the Companies Act, 2013 ("the Act") and as on Financial Year ended March 31, 2025, the Company does not require to have an Independent Director on Board of the Company. However, the Board has voluntarily appointed two Independent Directors on the Company's Board, and has additionally adopted a Code of Conduct for the Non-Executive Directors, and the Code laid down by the Company has been duly complied by them.

While the Company is not mandatorily required to constitute Committees such as the Audit & Risk Management Committee and the Nomination and Remuneration Committee, it voluntarily does so in the spirit of good governance.



These Committees, namely, the Audit & Risk Management Committee and Nomination and Remuneration Committee are governed in accordance with the applicable provisions of the Tata Board and Committee Governance Guidelines, as amended from time to time.

The Committees, i.e., Audit & Risk Management Committee, Nomination and Remuneration Committee, & Banking Committee are functional in TCE as a good Corporate Governance practice. The Company's Corporate Governance philosophy has been further strengthened through the Tata Business Excellence Model. The Board of Directors have a defined framework for review and control of company's long term strategy, vision, mission & values.

Board of Directors

As of March 31, 2025, the Company has 4 Directors, out of the 4 Directors, 3 (i.e. 75%) are Non-Executive Directors including one Woman Director. A Brief Profile of all the Directors, nature of their expertise in specific functional areas, etc. is available at <https://www.tataconsultingengineers.com/our-leadership/>. The Composition of the Board conforms with Section 149 of the Act. None of the Directors on the Board hold Directorships in more than ten public Companies.

8 Board Meetings were held during the year under review, and the gap between two Meetings did not exceed one hundred and twenty days. The dates on which the said meetings were held are given below:

Date of Board Meetings	Number of Directors Present at the Board Meeting	Total Number of Directors	Attendance (%)
April 22, 2024	3	3	100
May 29, 2024	3	3	100
June 24, 2024	3	3	100
July 12, 2024	3	3	100
August 09, 2024	4	4	100
November 15, 2024	4	4	100
December 16, 2024	4	4	100
March 06, 2025	4	4	100

The necessary Quorum was present for all the Meetings.

- i. The Directors have made necessary disclosures regarding Committee positions in other Public Companies as on March 31, 2025. None of the Directors are related to each other.

Based on the confirmations, declarations and disclosures received from the Independent Directors and on evaluation of the relationships disclosed. The Board confirms that, in its opinion, the Independent Directors of the Company fulfil the conditions specified in the Act and are independent of the Company's Management. Further, in terms of section 150 of the Act read with Rule 6(1) of the Companies (Appointment and Qualification of Directors) Rules, 2014, the Independent Directors have registered themselves on the data bank maintained by the Indian Institute of Corporate Affairs. Requisite disclosures in terms of Rule 6(3) of Companies (Appointment and Qualification of Directors) Rules, 2014, have also been received from the Independent Directors in this regard.

- ii. The Board periodically reviews the compliance reports of all the laws applicable to the Company.
- iii. Details of Equity Shares of the Company held by the Directors as of March 31, 2025: Not Applicable
- iv. The names and categories of the Directors on the Board, their attendance at Board Meetings held during the year under review and at the last Annual General Meeting ("AGM"), names of other Public Companies in which the Director is a Director, the number of Directorships and Committee Chairmanships / Memberships held by them in other Public Limited Companies as on March 31, 2025, are given hereinbelow. Other Directorships do not include Directorships of Private limited companies, Foreign companies and companies registered under Section 8 of the Act. Further, no Director is a member of more than ten Committees or Chairperson of more than five Committees across all Public Companies in which they are a Director. Only Memberships in Audit and Stakeholder Relationship Committees are considered while evaluating the above limits.
- v. The Board has identified the following skills/ expertise/competencies fundamental for effective functioning of the Company which are currently available with the Board:
 - **Global Business:** Understanding Global Business dynamics across geographical markets, industry verticals and regulatory jurisdictions.
 - **Strategy and Planning:** Strong appreciation of long-term trends and strategic decision-making, with proven experience in guiding and leading management teams to navigate uncertainty and make informed choices in dynamic environments.

Name of the Director (DIN)	Category	Number of Board Meetings attended during FY 2024-2025	Whether attended last AGM held on June 14, 2024 (Yes/No)	Number of Directorships in other Public Companies as on March 31, 2025		Number of Committee positions held in other Public Companies as on March 31, 2025		Directorship in other Listed Entity (Category of Directorship) as on March 31, 2025
				Chairman	Member	Chairman	Member	
Mr. L. KrishnaKumar, Chairman [#] (DIN 00423616)	Non-Independent, Non- Executive	8	Yes	0	2	2	1	1
Dr. Alka Mittal* (DIN 07272207)	Non- Executive, Independent	7	Yes	0	0	0	0	0
Ms. Anjali Kulkarni** (DIN 06993867)	Non-Independent, Non- Executive	1	NA	0	3	1	1	0
Dr. Kamlesh Nilkanth Vyas*** (DIN 07477510)	Non- Executive, Independent	4	NA	0	0	0	0	0
Mr. Amit Sharma Managing Director & CEO (DIN 03212568)	Non-Independent, Non- Executive	8	Yes	1	1	0	0	0

[#] Mr. L. Krishnakumar, Non-Executive Non-Independent Director was appointed as the Chairman of the Company w.e.f. April 22, 2024.

^{*}Dr. Alka Mittal has been appointed as an Additional Director, (Independent Category) w.e.f. April 23, 2024 and subsequently regularized on June 14, 2024

^{**}Ms. Anjali Kulkarni ceased from the office of directorship of the Company due to resignation w.e.f. April 30, 2024 (closure of business hours)

^{***} Dr. Kamlesh Nilkanth Vyas has been appointed as an Additional Director, (Independent Category) w.e.f. August 09, 2024

- **Governance:** Experience in developing robust governance practices, serving the best interests of all Stakeholders, upholding Board and management accountability, building long-term effective stakeholder engagements and promoting strong corporate ethics and values.
- **Financial Expertise:** Proficiency in financial management, financial reporting process, budgeting, treasury operations, audit and capital allocation. Ability to monitor the effectiveness of the risk management framework and practices.
- **People Management:** Experience in developing talent, planning succession and leading change initiatives to drive long-term growth. Strong understanding of business management, and workplace health and safety.

Nomination and Remuneration Committee - Other Details

Remuneration Policy

The Remuneration Policy of the Company is designed to create a high-performance culture. It enables the Company to attract, retain and motivate employees to achieve results. Our business model promotes customer-centricity and requires employee mobility to address project needs. In each country where the Company operates, the Remuneration structure is tailored to the regulations, practices and benchmarks prevalent in the industry.

The Company pays remuneration to its Managing Director and employees through a combination of salary, benefits, perquisites, and allowances, comprising both fixed and variable components. Annual increments, effective from April 1 each year, are recommended by the Nomination and Remuneration Committee within the salary scales approved by the Board and, where applicable, the Members.

The Board of Directors, on the recommendation of the Nomination and Remuneration Committee, decides the Annual Bonus payable to the Managing Director, and the commission payable to the Non-Executive Directors from the profits for the financial year.

The Annual Bonus and Commission are decided within the ceilings prescribed under the Act, based on the Board evaluation process considering the criteria such as the performance of the Company as well as that of the Managing Director and each Non-Executive Director.

The Company pays sitting fees of Rs. 40,000 per meeting to its Non-Executive Directors (not in Tata employment) for attending meetings of the Board and its Committees. In addition, the Company proposes to pay commission to the Non-Executive Directors, within the overall ceiling of 1% of the Company's net profits, as calculated in accordance with the applicable provisions of the Act, subject to approval by the Members.

The commission is determined annually by the Board of Directors on recommendation of the Nomination and Remuneration Committee.

It is distributed among the Non-Executive Directors based on the Board evaluation process, taking into account factors such as attendance and contributions at Board and Committee Meetings, as well as the time devoted to operational matters other than at meetings.

Committees of the Board

In financial year 2024-25, the Board has accepted all recommendations of its Committees. The draft Minutes of the Committee Meetings are circulated to the respective Committee Members for their comments and the final Minutes are thereafter entered into the Minutes Book. Minutes of the proceedings of Committee Meetings are circulated to the Directors and placed before the Board at their Meetings for noting. The details about various Board Committees as on March 31, 2025, which comprises of Statutory Committees as well, are as follows:

Name of the Committee	Extract of Terms of Reference	Category and Composition	Other Details
Corporate Social Responsibility Committee	<ul style="list-style-type: none"> Formulate and recommend to the Board a CSR Policy and CSR Annual Action Plan indicating activities to be undertaken by the Company as specified in Schedule VII of the Act. Recommend amount of the expenditure to be incurred on the activities mentioned in the CSR Policy. Monitor Corporate Social Responsibility Policy of the Company from time to time. 	Dr Alka Mittal – Member, Chairperson Mr L Krishnakumar – Member, Director Dr K N Vyas – Member, Director Mr Amit Sharma – Member, Director	During the year under review, 3 Corporate Social Responsibility Committee Meetings were held.
Nomination & Remuneration Committee	<ul style="list-style-type: none"> Recommend to the Board setup and composition of Board and its committees. Recommend to the Board the appointment/re-appointment of Directors and Key Managerial Personnel. Support the Board and Independent Directors in evaluating the performance of the Board, its Committees and Individual Directors. Recommend to the Board, Remuneration Policy for Directors, Executive Team or Key Managerial Personnel, and rest of employees. Oversee familiarisation programs for the Directors. 	Mr L Krishnakumar – Member, Chairman Dr Alka Mittal – Member, Director	During the year under review, 4 Nomination and Remuneration Committee meetings were held, as a good Corporate Governance practice.
Audit & Risk Management Committee	<ul style="list-style-type: none"> Oversight of financial reporting process. Review with the management Annual Financial Statements and Auditors' Report thereon before submission to the Board for approval. Evaluation of internal financial controls and Risk Management systems Recommendation for appointment, remuneration and terms of appointment of auditors of the Company. Approve policies in relation to the implementation of the Related Party Transactions. To consider matters with respect to the Tata Code of Conduct, Anti-Bribery and Anti- Corruption Policy and Gift Policy. 	Mr L Krishnakumar – Member, Chairman Dr Alka Mittal – Member, Director Dr. K.N. Vyas – Member, Director	During the year under review, 4 Audit & Risk Management Committee Meetings were held, as a good Corporate Governance practice

Number of Board & Committee Meetings Held and Attendance Record (FY 2024-25)

Name of the Committee	Audit & Risk Management Committee	Nomination and Remuneration Committee	Board	Corporate Social Responsibility Committee
No. of Meetings held	4	4	8	3
Date of Meetings	April 22, 2024 May 29, 2024 November 15, 2024 March 06, 2025	April 22, 2024 May 29, 2024 November 15, 2024 March 06, 2025	April 22, 2024 May 29, 2024 June 24, 2024 July 12, 2024 August 09, 2024 November 15, 2024 December 16, 2024 March 06, 2025	April 22, 2024 May 29, 2024 August 09, 2024
No. of Meetings Attended				
Mr. L Krishnakumar	4	4	8	3
Dr. Alka Mittal*	3	3	7	2
Ms. Anjali Kulkarni**	1	1	1	1
Dr. Kamlesh Nilkanth Vyas***	2	-	4	NA
Mr. Amit Sharma	-	-	8	3
<p>*Dr. Alka Mittal was appointed as an Additional Director, (Independent) with effect from April 23, 2024, and was subsequently regularized on June 14, 2024. She was inducted into the Audit & Risk Management Committee, Nomination and Remuneration Committee and Corporate Social Responsibility Committee with effect from May 22, 2024.</p> <p>**Ms. Anjali Kulkarni ceased from the office as Director of the Company following her resignation effective from the close of business hours on April 30, 2025.</p> <p>***Dr. Kamlesh Nilkanth Vyas was appointed as an Additional Director (Independent) with effect from August 9, 2024. He was subsequently inducted into the Corporate Social Responsibility Committee on September 25, 2024, and the Audit & Risk Management Committee on October 30, 2024.</p>				
Whether quorum was present for all the Meetings?			The necessary quorum was present for all the above Board & Committee Meetings.	

General Body Meetings

a. Annual General Meeting (AGM)

For Financial Year	Date	Time	Venue
2021-22	Tuesday, July 05, 2022	11.00 A.M.	Through Video Conferencing ('VC') / Other Audio-Visual Means ('OAVM') Deemed Venue: Registered Office, i.e. Elphinstone Building, 10, Veer Nariman Road, Fort, Mumbai - 400 001
2022-23	Friday, May 19, 2023	11.30 A.M.	Through VC / OAVM Deemed Venue: Registered Office, i.e. Elphinstone Building, 10, Veer Nariman Road, Fort, Mumbai - 400 001
2023-24	Friday, June 14, 2024	11.30 A.M.	Through VC / OAVM Deemed Venue: Registered Office, i.e. Elphinstone Building, 10, Veer Nariman Road, Fort, Mumbai - 400 001

- b. Extraordinary General Meeting: No Extraordinary General Meeting of the members was held during FY 2024-25.
- c. Special Resolution(s) for FY 2024-25: No Special Resolution for FY 2024-25.

Secretarial Auditors of the Company, M/s Amrita Nautiyal & Associates, Practicing Company Secretaries, have confirmed that the Board of the Company is duly constituted and processes relating to the changes in the composition of the Board were carried out in compliance with the provisions of the Act.

M/s B S R & Co. LLP Chartered Accountants (FRN 101248W/W-100022) were re-appointed as the Company's Statutory Auditors at the 23rd AGM, i.e., for a term of five years commencing from FY 2022-23 till FY 2026-27. Details of the Statutory Auditors' remuneration, on a consolidated basis, are provided in the Statutory Section of the Annual Report.

Other Disclosures

Particulars	Regulations	Details	Website Link for more information/policy
Related Party Transactions	As defined under the Act	Details of the Related Party Transactions are disclosed in the Board Report which forms part of the Statutory Section. All such transactions entered into during the financial year were in the ordinary course of business and conducted on an arm's length basis, with approval from the Audit and Risk Management Committee. The Board approved Policy on Related Party Transactions is available on the Company's website	https://www.tataconsultingengineers.com/corporate-governance/
Whistle Blower Policy and Vigil Mechanism	As per the Act	The Company has a Whistle Blower Policy and has established the necessary Vigil Mechanism for Directors and employees to report unethical behaviour concerns. No person has been denied access to the Chairperson of the Audit & Risk Management Committee. The said policy has been uploaded on the website of the Company.	https://www.tataconsultingengineers.com/corporate-governance/
Disclosure under the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013	As per the Act	Details have been disclosed in the Board's Report which forms a part of the Statutory Section of the Annual Report.	
Appointment of Independent Director	As per the Act	The terms & conditions of Appointment of Independent Director are uploaded on the website of the Company.	https://www.tataconsultingengineers.com/wp-content/uploads/2024/05/Terms-and-Conditions-of-Appointment-of-Independent-Directorss.pdf

Enterprise Risk Management (ERM)

In today's increasingly interconnected and volatile global landscape, businesses are facing an unprecedented array of risks. The environment is shaped by uncertainties and challenges ranging from United States-imposed tariffs and retaliatory measures, geopolitics, wars and tensions, evolving trade partnerships, policy uncertainty, competition for resources, cyber threats, climate-related disruptions, rising protectionist measures, as well as complex and dynamic regulatory environments. These factors are putting significant strain on globally integrated businesses. In response, countries are actively working to safeguard and diversify their supply chains, particularly in critical sectors such as energy, semiconductors, food and minerals.

Amid this global slowdown, India stands out as one of the fastest-growing emerging economies, supported by stable and business-friendly government policies. Many countries are strengthening their trade partnerships with India, recognising the nation as a key hub in Asia with immense potential for growth, investment and opportunity.

Even though the global market environment is expected to be volatile, it is also expected to present numerous opportunities. The level of risks and complexity may be high due to increased costs and global uncertainties. The need of the hour is to assess and select opportunities that align with the organisation's strategy and risk appetite, ensuring that growth is sustainable in the long term. Organisations that embed risk thinking into their core strategy are better equipped to pivot quickly, maintain stakeholder trust and capture opportunities even in turbulent times. As global uncertainties continue to evolve, robust and agile risk management is no longer merely a protective measure but a competitive differentiator.

To reduce or mitigate the impact of potential risks, both internal and external, on the company's performance, the company has developed an Enterprise Risk Management framework and process aligned with the business value chain and best practice recommendations such as ISO 31000 and the COSO framework. The company's risk management procedure captures and evaluates risks throughout the entire lifecycle of a project, from the bid stage through to project closure.

The risk management system at both bid and execution stages captures and shares risk data for bids and projects through various dashboards and reports. These tools support risk reviews, mitigation, monitoring, and reporting. Key parameters tracked include risk scores, high-risk bids or projects, and corresponding mitigation plans.

Measures and initiatives to deal with key risks include the following:

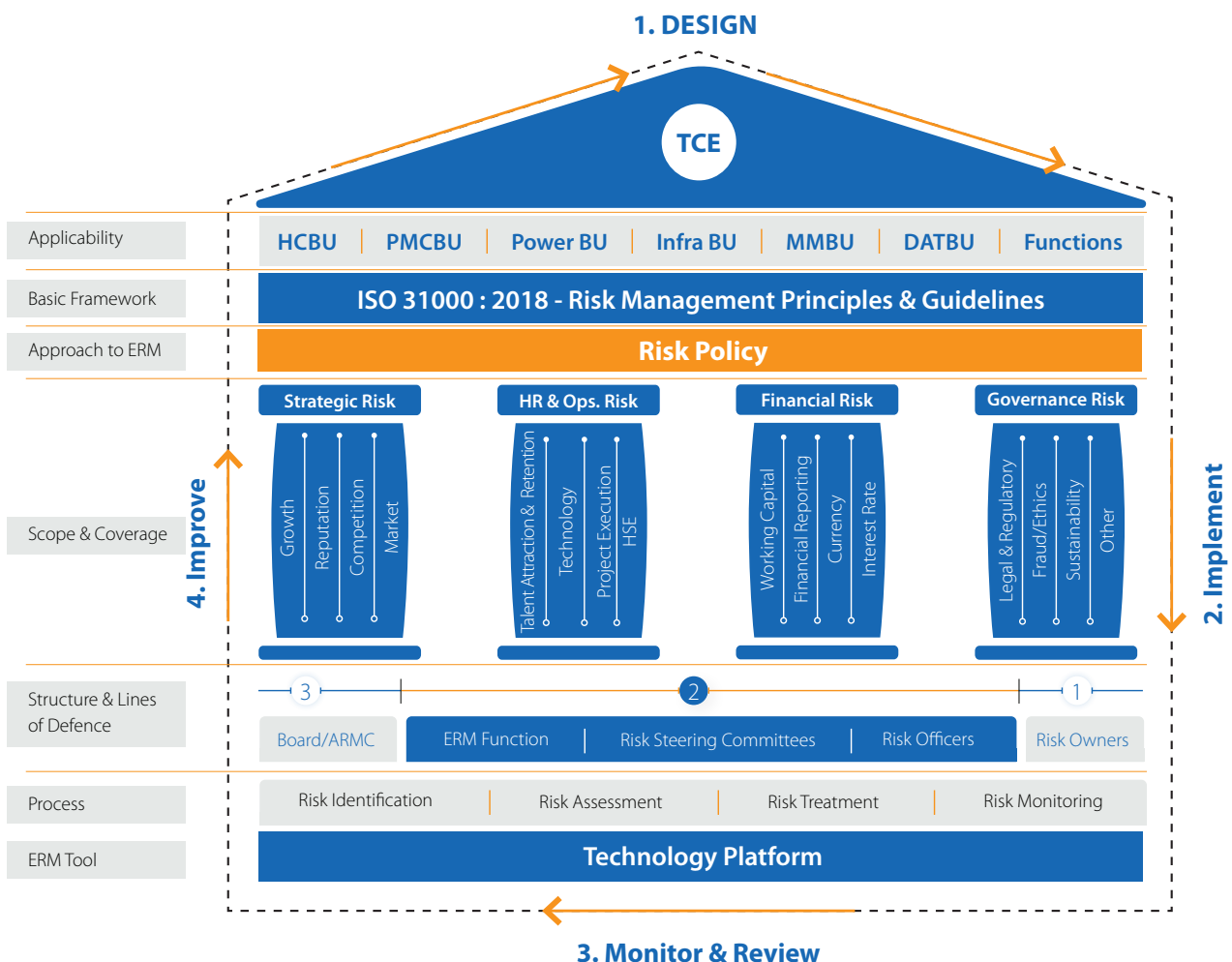
- A detailed review of bids based on threshold values at the bid stage and regular project reviews of key projects from each Business Unit
- Providing risk inputs to strategy, covering business and sector-wise updates in terms of risks and opportunities
- A risk challenge to the Annual Business Plan, taking into account potential risks that may impact the plan and estimating likely effects in terms of optimistic, pessimistic and base-case scenarios
- Portfolio analysis of sectors within a Business Unit to understand the balance between risk and return potential
- Preparation and sharing of country profiles with Business Units and the International Sales and Marketing Group, covering both risks and opportunities for informed decision-making
- Revision and update of Business Unit and functional risk registers

- Analysis of competition to gain insights into key strategic initiatives, financials and common areas of focus. This outside-in perspective helps the Business Units identify strategic focus areas and opportunities that provide a competitive advantage in line with the overall strategy of the organisation
- A Joint Venture partnership risk management framework has been developed to ensure that risks related to partnerships are identified and addressed throughout the lifecycle of a project
- Greater emphasis on strengthening the risk culture within the organisation by training key stakeholders, including Business Unit Risk Officers, Business Development teams and Project Management teams
- The Risk Management team at TCE also offers its services to external clients as a value-added differentiator, helping to build client confidence

TCE has also implemented a robust internal compliance process monitoring framework that identifies key process and system-related parameters. Each month, Business Units are assessed and rated against these parameters to evaluate their adherence to established processes and systems. This regular evaluation not only reflects the extent of compliance but also identifies areas for future improvement, thereby providing assurance over the integrity of the company's business operations.

These structured efforts have significantly strengthened the company's governance and risk processes, enabling better-informed decision-making. The ERM team periodically presents its findings and updates to the CMC and the Audit and Risk Management Committee of the Board. These presentations include risk assessments and the mitigation procedures adopted, enhancing the overall effectiveness of the risk management framework.

TCE Enterprise Risk Management Framework



Risk Management Organisation

The risk function is led by the Chief Risk Officer (CRO), under the guidance of the Managing Director, Chief Operating Officer, and the Board. The CRO is supported by a Corporate Risk team and Business Unit Risk Officers (BUROs) across the organisation. This collaborative structure ensures consistent deployment of risk frameworks and facilitates alignment of risk management practices across Business Units. These procedures also extend to functional and organisational levels, ensuring that risks are assessed not only at the project level but across Business Units and supporting functions. The organisation's Risk Management Framework is structured to provide a comprehensive, proactive and integrated approach to risk identification, analysis, mitigation and monitoring throughout the company's operations.

Risk Outlook and Resilience Planning

TCE operates on a global scale and faces a broad spectrum of risks across its business landscape. In the current environment marked by uncertainty and global disruption, the risk outlook for engineering consultancies has expanded significantly. It now includes not only traditional project and operational risks but also encompasses geopolitical instability, regulatory uncertainty, cyber security threats, and challenges related to environmental, social, and governance (ESG) factors.

As TCE continues to grow and diversify across sectors such as infrastructure, oil and gas, metals and mining, power, and digital services, the business is increasingly exposed to evolving risks driven by changing government policies, rapid technological advancements, and pressing climate related imperatives.

Resilience planning has therefore become a strategic priority. It is no longer viewed merely as a compliance requirement but rather as a proactive approach to ensure long-term business continuity and value creation. Building resilience involves the development of adaptive systems, flexible delivery models, diversified supply chains, and agile governance structures that enable the organisation to respond effectively to sudden shocks and long-term disruptions. By integrating risk management into all strategic and operational decision-making processes, TCE aims to strengthen its ability to anticipate emerging threats, respond to challenges swiftly, and protect stakeholder interests. This approach not only helps ensure continuity of service but also positions the company to take advantage of new opportunities in an ever-changing global landscape.

The key areas of risk and corresponding mitigation strategies have been outlined in the table below. These provide a comprehensive view of the risk landscape and the structured approach TCE has adopted to manage and reduce the impact of such risks across its operations.

Risk Categories and Mitigation Strategies

Risk Category	Key Risk Areas	Areas Impacted	Mitigation Strategies
Economic Risk	<ul style="list-style-type: none"> Demand for the company's services is mainly based on capital expenditure. Economic downturns, reduced public or private investment, and political and economic uncertainty may impact sectors in which clients operate. Rising inflation, geopolitical tensions, tariffs, supply chain disruptions, and energy price hikes may affect project feasibility or timely payments. 	<ul style="list-style-type: none"> Ability to secure new business and achieve revenue targets. Cash flow from ongoing projects may be impacted due to delays or cost increases. 	<ul style="list-style-type: none"> TCE operates across multiple Business Units, which reduces reliance on any one sector. Conduct thorough due diligence to ensure project feasibility and funding.

Risk Category	Key Risk Areas	Areas Impacted	Mitigation Strategies
Business Acquisition and Revenue Flow	<ul style="list-style-type: none"> External factors such as geopolitical tensions, economic fluctuations, wars, political changes, policy shifts, market volatility, and pandemics can influence business acquisition. Delays or reductions in new orders may hinder the achievement of revenue targets. Revenue generation might also be adversely affected by internal challenges such as the inability to deploy suitable manpower or inadequate planning. 	<ul style="list-style-type: none"> Decrease in available projects or order backlog. Adverse effects on revenues, cash flows, and profitability. 	<ul style="list-style-type: none"> Identify potential sectors, geographies, and business models for expansion. Develop new key accounts and customers, and explore entry into new areas through strategic partnerships. Strengthen customer engagement to build long-term relationships and repeat business.
Human Resources	<ul style="list-style-type: none"> Shortage of essential resources due to high attrition in specific Business Units (BUs). Challenges in attracting the right talent in a competitive market. Unforeseen events such as wars, pandemics, and climate-related disruptions affecting deployment of personnel to global sites. 	<ul style="list-style-type: none"> Delays in project deliverables. Reduced revenues and profits. Increased manpower expenses when urgent hiring is necessary. Employee health and safety concerns. 	<ul style="list-style-type: none"> Strengthening employee engagement initiatives. Implementing targeted learning and re-skilling programmes with adequate training. Adopting proactive recruitment strategies to attract suitable talent from varied sources. Creating a safe and secure working environment and ensuring employee well-being.
Locked Working Capital and Cash Flow	<ul style="list-style-type: none"> Many of the company's contracts follow milestone-based payment terms, which means that significant costs may be incurred before billing and collection actually take place. Cash flows from projects may vary considerably during the execution period, depending on factors such as delays and unforeseen events. 	<ul style="list-style-type: none"> Working capital may be affected, leading to increased financing costs. There could be periods of negative cash flow. 	<ul style="list-style-type: none"> Placing greater emphasis on contract and claims management to ensure project delivery remains profitable. Conducting thorough due diligence and accounting for locked capital or potential cash flow issues at the bid stage. Negotiating contracts with improved payment terms, particularly with private clients or where tender conditions allow changes.
Cost Overrun	<ul style="list-style-type: none"> Costs may increase in projects due to various reasons such as: <ul style="list-style-type: none"> Higher number of resources required. Delays in project schedule. Resources being underutilised while assigned to a project. 	<ul style="list-style-type: none"> Reduction in overall profitability. Potential disputes with clients. 	<ul style="list-style-type: none"> Conduct thorough reviews during the bidding stage and examine both primary and secondary data to identify risks, quantify them, and factor them into pricing. Adopt best practices in project and contract management to prevent cost overruns.

Risk Category	Key Risk Areas	Areas Impacted	Mitigation Strategies
International Operations	<ul style="list-style-type: none"> TCE's international operations are subject to additional risks and uncertainties, including unfavourable political developments and weak economic conditions. These may include unexpected changes in government or policies, geopolitical tensions, potential non-compliance with evolving regulations and industry standards, renegotiation or cancellation of existing contracts, social, political, and economic instability, and currency fluctuations. The acquisition of CDI Engineering Solutions may not deliver the expected business benefits in the United States as intended. 	<ul style="list-style-type: none"> Loss of business. Risks to the safety and security of personnel. Adverse impact on revenue and profitability. Effect on the company's global footprint. Financial performance of the consolidated entity. Delays or failures in expanding into key geographies or sectors. Challenges in integration of systems, processes, and culture. Regulatory hurdles due to changes in regulations, particularly relating to foreign investments or repatriation. 	<ul style="list-style-type: none"> Conducting and updating country risk analyses regularly to identify suitable geographies for expansion based on a Go or No-go assessment. Undertaking proper due diligence during the bidding stage with respect to country or location-specific risks. Avoiding engagement in countries or regions that are excessively risky, unsafe, economically unstable, or weak. Establishing systems and processes to ensure compliance with all key regulatory, governmental, and contractual requirements, standards, and laws. Maintaining proactive and frequent communication with the CDI team to ensure integration is carried out in the true spirit of partnership. Setting up a dedicated integration team to address and resolve any challenges that may arise.
Loss of Confidential Information / Data Violation / Breach	<ul style="list-style-type: none"> Although processes are in place to correctly identify and safeguard confidential information belonging to the company and its stakeholders, there is still a potential risk of loss or breach of such sensitive data. 	<ul style="list-style-type: none"> Exposure or loss of sensitive information. Negative consequences on brand reputation and credibility. Potential loss of ongoing or future business opportunities. 	<ul style="list-style-type: none"> Conduct regular training and awareness programmes to sensitise employees on the importance of information security. Ensure appropriate Non-Disclosure Agreements (NDAs) and confidentiality undertakings are signed by employees and business partners. Strengthen IT infrastructure and continuously monitor for potential breaches or vulnerabilities in security systems.

Risk Category	Key Risk Areas	Areas Impacted	Mitigation Strategies
Safety Risk	<ul style="list-style-type: none"> The company may be exposed to safety-related issues if quality standards are not followed or if processes are not properly adhered to during the design and review of safety mechanisms in the construction phase, as per contractual terms. Employees deployed at challenging or high-risk locations may face safety concerns due to geography-specific or geopolitical conditions such as conflicts or unsafe environments. 	<ul style="list-style-type: none"> Reputational damage. Risk of injuries or loss of life. Threats to employee safety. 	<ul style="list-style-type: none"> Internal process checks are conducted rigorously by an independent team to ensure that all quality standards and safety parameters are met. Relevant employees receive proper training on safety processes and protocols to maintain safety at every stage. A clear demobilisation strategy is in place to safeguard employees when situations require withdrawal. Before entering a new geography, detailed country profiles are prepared, including assessments of economic, political, security, legal factors and diplomatic relations with India. These profiles also include an evaluation of risks and opportunities to ensure that projects undertaken in international locations are both safe and aligned with the company's strategic direction.
Joint Ventures (JVs) / Partnerships	<ul style="list-style-type: none"> TCE undertakes certain contracts as a member of joint ventures, partnerships, and similar collaborative arrangements. There is a risk that partners may be unable to meet their contractual obligations to TCE or to clients. The company may have limited control over the actions of JV partners, including non-performance, defaults, bankruptcy, or breaches of legal compliance. 	<ul style="list-style-type: none"> Delays and compromises in the time and quality of project delivery. Loss of revenue and profitability. Increase in legal disputes, leading to reputational damage. 	<ul style="list-style-type: none"> Conducting thorough due diligence of JV partners during the pre-bid and bid stages, especially to assess financial capability, relevant experience, and track record. Establishing strong back-to-back contractual arrangements to ensure that liabilities and penalties are shared proportionately with the JV partner. Implementing a JV partnership framework and training staff to effectively manage JV-related risks throughout the life cycle of the project.

Risk Category	Key Risk Areas	Areas Impacted	Mitigation Strategies
Concentration Risk	<ul style="list-style-type: none"> Dependency on a few key clients, specific business models, geographies, or sectors could negatively affect revenue. Even with strong relationships and consistent performance by TCE, such clients might be forced to reduce, delay, or cancel contracts due to changes in their business environment. 	<ul style="list-style-type: none"> Business performance may become volatile or experience fluctuations. Over-reliance on any single factor could hinder the achievement of acquisition, revenue, and expected profitability or operational targets. 	<ul style="list-style-type: none"> Make conscious efforts to reduce dependency or concentration on any single client, geography, or sector. Develop new key or large client accounts. Strengthen business relationships with clients at various levels.
Liabilities	<ul style="list-style-type: none"> The company's project execution activities may result in liabilities as per the contract conditions. Force Majeure conditions may be activated. The company could be exposed to monetary damages, claims, or reputational risks due to deficiencies in service or any catastrophic event at the company's project sites. 	<ul style="list-style-type: none"> Unexpected costs to correct deficiencies may lead to an increase in overall project costs. Negative impact on profitability. Increased litigations and legal disputes. 	<ul style="list-style-type: none"> Adequate professional liability insurance is maintained at the organisation level. Proper due diligence is conducted during the bid stage to avoid taking on large liabilities, while strictly adhering to contract requirements and following professional best practices to prevent the imposition of penalties or liabilities. Project-specific insurance is arranged wherever there are particular requirements.
Intellectual Property (IP)	<ul style="list-style-type: none"> Although the company safeguards its intellectual property through contractual arrangements, formal registrations, licensing, and non-disclosure agreements, it may not be able to fully prevent infringement of its intellectual property. There is a risk that employees, either inadvertently or intentionally, may cause infringement of a client's or third party's intellectual property rights. Legal proceedings to determine the scope or enforcement of IP rights, even if successful, can be time-consuming and expensive. 	<ul style="list-style-type: none"> Unexpected and substantial financial costs. Significant use of senior management's time and attention. Negative effect on the company's reputation and brand value. 	<ul style="list-style-type: none"> Strengthening internal processes, contracts, and other mechanisms to protect the company's intellectual property, confidential information, and trade secrets. Providing regular training to employees on the importance of respecting both the company's IP and that of other stakeholders, and on the serious consequences the company could face in the event of any infringement.

Strengthening Our Culture of Ethics and Integrity

At Tata Consulting Engineers (TCE), ethics is embedded in every decision, action, and relationship. During the year, we continued to deepen this culture by strengthening governance frameworks, expanding learning programmes, and engaging employees through innovative formats. With over 14,000 person-hours dedicated to training, enhanced use of our ETHOS platform, and greater focus on ethical partnerships, we reinforced integrity and transparency across our operations. Ethics at TCE is more than compliance. It is a commitment to doing what is right, and enabling everyone to do so with confidence and clarity.

Embedding Integrity in Every Action

Ethics at TCE is guided by the Tata Code of Conduct (TCoC) and built into the way we operate every day. Every individual across the company is expected to uphold the highest standards of ethical behaviour, ensuring that trust, accountability and fairness are reflected in every interaction.

Our ethics governance structure includes Location Ethics Counsellors (LECs), an Internal Committee (IC) as per the POSH Act, Ethics Champions from middle management, and a Chief Ethics Counsellor (CEC) who reports directly to the Managing Director. These roles ensure a strong ethical foundation across all delivery centres and project sites, promoting a culture where speaking up is valued and supported.

The digital platform ETHOS serves as a one-stop destination for ethics-related needs. Employees can report concerns, disclose conflicts of interest, declare gifts, and access learning resources. The launch of the Code of Ethics Handbook this year further supports ethical decision-making by consolidating key policies into a single, easy-to-use reference.

To promote awareness, TCE continues to invest in structured learning and engaging experiences. In FY 2024–25, over 14,225 person-hours were dedicated to ethics training. These covered essential areas such as the Tata Code of Conduct (TCoC), the Prevention of Sexual Harassment (POSH), Anti-Bribery and Corruption (ABAC), and Anti-Money Laundering (AML).

These efforts reflect our ongoing commitment to building a values-driven culture where ethics, compliance and trust go hand in hand.

Ethics Week, held twice a year, has evolved into a key initiative that inspires and informs. Themes such as “Internalising Ethics Beyond Compliance” and “Professional Ethics” provided the backdrop for various activities. These included:

- Over 2,700 employees and Associates participating in open house sessions led by LECs
- More than 4,000 social media engagements with external stakeholders

Engaging formats, such as the Ethics Escape Room Challenge, Quizzes, Poetry, Pictionary, and Leadership Talks, made the content accessible and relevant. The Ethics Flag Bearer initiative honoured employees who demonstrated consistent ethical behaviour, and their stories were shared internally to encourage similar values across teams. Senior leaders conducted Ethics Master Classes and regular forums to discuss TCoC principles, maintaining a clear tone at the top.

Externally, we reinforced our values through the Third-Party Due Diligence (TPDD) process. This digital framework helps verify that suppliers and partners operate in alignment with TCE’s ethical expectations. Recognised through internal audits and benchmarked across the Tata Group, this system adds another layer of assurance in how we conduct our business.

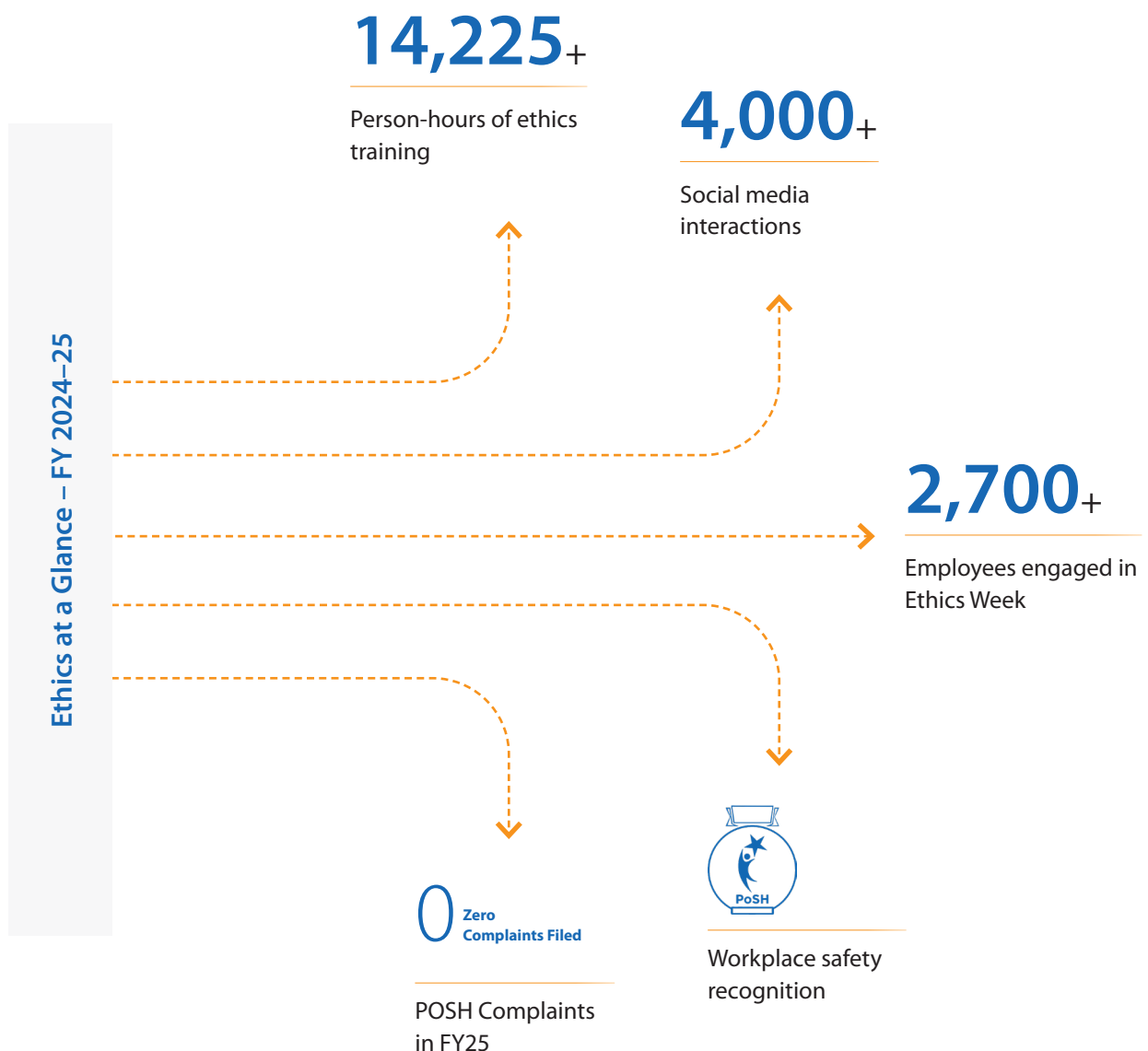
Promoting Respectful and Inclusive Workplaces

Creating a safe and inclusive workplace remains a top priority. Awareness sessions on the POSH framework were held across all delivery centres and included workshops and open Q&A forums led by external experts. TCE has once again been recognised as one of India's Top 25 Safest Workplaces, marking the third consecutive year we have earned this honour.

TCE follows a gender-neutral POSH policy backed by detailed procedures and consistent training.

The Company has zero tolerance for sexual harassment and has adopted a comprehensive policy on the prevention, prohibition, and redressal of sexual harassment in the workplace. In line with the provisions of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, an Internal Complaints Committee is in place to handle any issues with sensitivity and confidentiality.

We are pleased to report that no complaints were received under the POSH Act during the financial year 2024–25.



Strategic Direction – Engineering Excellence, Enabling Growth

In FY25, Tata Consulting Engineers continued with a clear and purpose-driven strategy that reflected our theme of Engineering Excellence, Enabling Growth. With a focus on delivering sustainable value across sectors and geographies, our strategic direction was built on strengthening the domestic core, entering emerging sectors aligned with national priorities, and expanding selectively into global markets. These priorities were guided by structural shifts in the global and Indian economies, particularly the energy transition, increasing emphasis on sustainability, resilience in supply chains, and the growing demand for digital and technology-led engineering solutions.

Our comprehensive Strategy Framework, clearly outlines our ambition. At its core, this framework integrates key strategic choices, our unique right to win, a people-focused approach, and unwavering delivery excellence. Digitalisation, Health, Safety & Environment (HSE), and Innovation & Knowledge Management form foundational elements supporting these strategic pillars.

In India, we further developed our core strengths by building closer relationships with clients and consistently delivering high-quality, scalable solutions in infrastructure, energy, and industrial sectors. By participating in major projects, particularly within water management, manufacturing, and essential infrastructure development, we significantly improved our visibility and operational capability. Collaboration was key to our strategy, particularly through partnerships within the Tata Group, allowing us to benefit from combined strengths, increased innovation, quality improvement, and integrated service offerings.

We aligned closely with India's national priorities by proactively entering new sectors such as renewable energy, advanced manufacturing, and sustainability initiatives. Our involvement in clean energy projects, including solar, wind, hydro storage, and green hydrogen, highlighted our dedication to supporting India's renewable energy goals. Additionally, our capabilities in advanced manufacturing technologies and environmental sustainability positioned us as an essential partner in India's journey towards self-reliance, circular economy practices, and sustainable growth.

Globally, despite uncertain geopolitical and economic conditions, TCE successfully increased its international presence. Strategic partnerships and master service agreements expanded our capabilities and supported our entry into new markets across Asia Pacific, Europe, the Middle East, and the Americas. Targeted acquisition will further strengthen our global capabilities and sector expertise, adding value to our international clients and establishing TCE as a trusted global engineering partner.

Financial responsibility and operational efficiency were fundamental to our strategic direction, leading to effective working capital management and careful cost control. Investment in digital innovation and technology-led productivity improvements through our Accelerated Delivery Centre model allowed our teams to deliver complex and integrated engineering solutions efficiently.

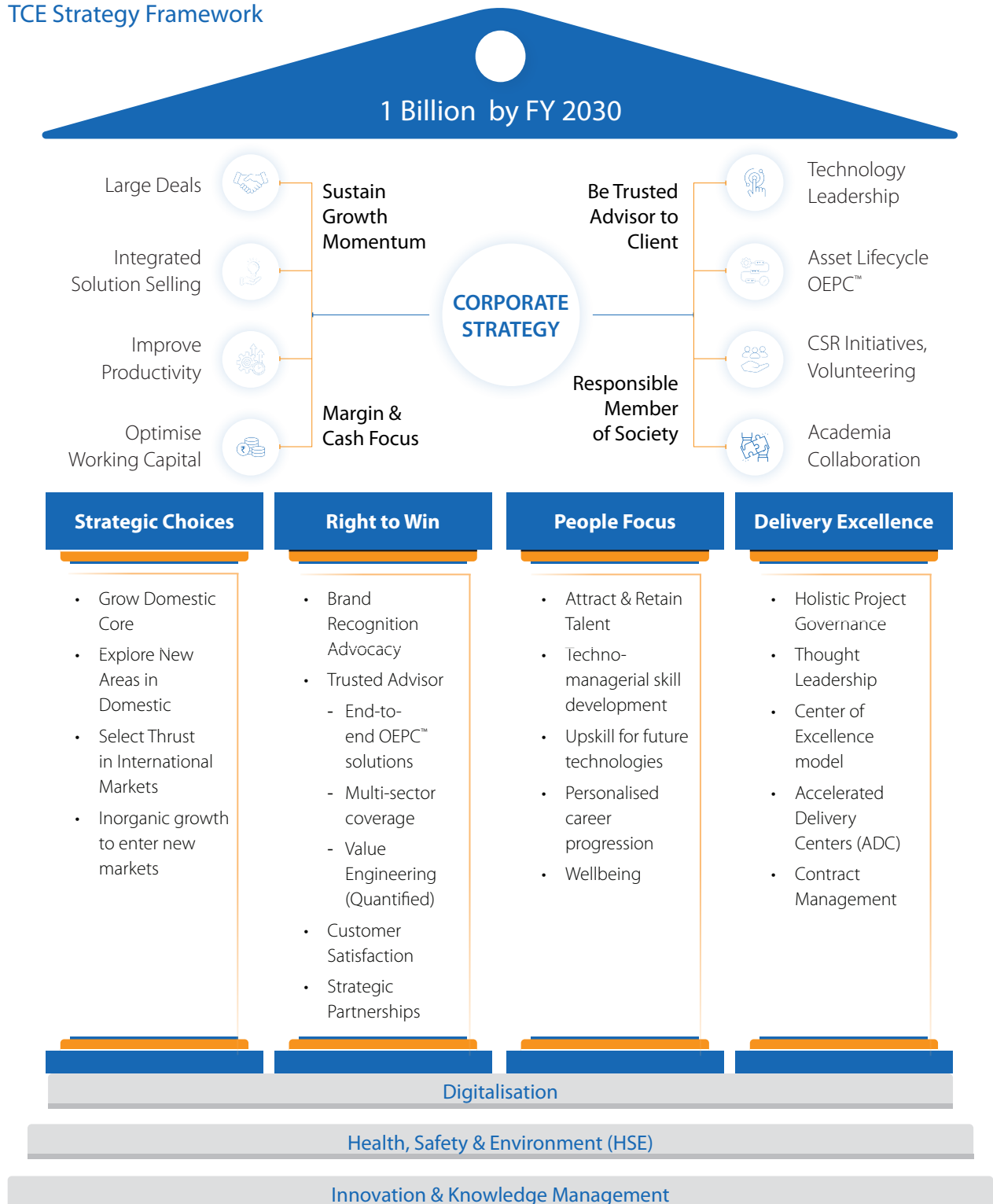
Five key factors guided our strategic direction: sustained infrastructure growth in India, global efforts in energy transition, rapid technological advancement, increasing global sustainability standards, and reliable global supply chains. These drivers continuously influenced our strategic decisions, capability development, and market focus, ensuring TCE remains agile, relevant, and competitive.

TCE's strategic approach aligns closely with our Vision, Mission, and Values. We implement these core principles through a Balanced Scorecard system, assessing our performance across financial results, customer satisfaction, internal process efficiency, and talent development.

Our strategic planning process combines executive guidance with practical business insights, ensuring TCE remains adaptable, responsive, and forward-looking. Our structured review processes at different organisational levels support continuous improvement and ensure strategic alignment. Regular performance evaluations and strategic reviews enable us to proactively adapt to changing market conditions and emerging challenges, sustaining steady growth.

Our long-term aspiration is to substantially grow our global presence and become recognised among the leading global engineering consulting firms. Our growth strategy continues to focus on energy transition, advanced manufacturing, digital technologies, and sustainable infrastructure projects.

TCE Strategy Framework



Value Creation Model

Inputs



Financial Capital

- 972 Cr Net Assets
- 221 Cr Consolidated Cash & Cash Equivalent



Human Capital

- 7,759 Workforce on 31st March 2025
- 10.4 days average annual training days per employee



Intellectual Capital

- 34 Technology team employees
- 90% total billable workforce
- 4,000+ Standard Documents
- 200+ Automation Programs



Natural and Manufactured Capital

- 5.3+ lakh sq. ft. office space
- 19.09 Cr capex spent on tech infrastructure
- 14 Sustainability Service Offerings



Social and Relationship Capital

- 4.4 Cr invested in CSR programs
- 1,100+ total number of active clients
- 20+ active projects engineering sustainable solutions

Process and Strategy

Services We Offer

Design & Engineering

Digital & Advanced Technologies

Sustainability & Energy Transition Solutions

Project Management & Safety

Optimise
Working
Capital



Margin &
Cash Focus

Improve
Productivity



Integrated
Solution
Selling



Large
Deals



Sustain Growth
Momentum

CORPORATE STRATEGY

Responsible Member
of Society

Be Trusted Advisor
to Client



Academia
Collaboration



CSR Initiatives,
Volunteering



Asset Lifecycle
OEPC™



Technology
Leadership

Sectors We Serve

Power

Infrastructure

Hydrocarbons & Chemicals

Mining & Metallurgy

Outputs

Outcomes

Stakeholders

Financial Capital

- ₹ 2,092 Cr Total Consolidated Income
- ₹ 3,348 Cr New Order Acquisition
- 35% International Share in Revenue
- 16% of business from Opex Services

- Prestigious projects bagged include engineering a greenfield semiconductor fabrication facility, a large solar glass manufacturing plant, and solutions for Pumped Storage Plants (PSPs) and Battery Energy Storage Systems (BESS).



Customers

Human Capital

- 2,608 New Workforce in FY 2023- 24
- 18% Women workforce (1027 No)
- 723 Trainees Hired

- Safe and inclusive workplace
- Awarded for excellence in employee retention strategy
- Awarded for excellence for women in STEM



Employees

Intellectual Capital

- 8,459 Cr value additions for the customers
- 60 Papers/articles published
- 07 Patents granted
- 08 New Technology offerings

- Processes were strengthened through several automation applications. A strong focus on innovation led TCE to secure the prestigious CII industry academia award, Golden Peacock Innovation and Tata Innovista Award.



Shareholders

Natural and Manufactured Capital

- 23 environmentally conscious offices

- Safe, healthy and productive workspaces for employees
- Awarded POSH top 25 safest workplaces in India



Government

Social and Relationship Capital

- 34,000 beneficiaries from various targeted Education Initiatives
- 72,364 total beneficiaries in all CSR programs
- 20,071 Corporate volunteering clocked

- Significantly enhanced educational opportunities for students
- Positively transformed lives across various communities through our comprehensive CSR initiatives and dedicated corporate volunteering efforts.



Communities

Technology as a Growth Catalyst in Engineering Excellence

Tata Consulting Engineers (TCE) continues to strengthen its position as a leading design and engineering consultancy by embedding technology into every facet of its operations. In today's fast-changing environment, technology has moved beyond being an enabler to becoming the very foundation on which modern engineering is built. At TCE, this belief is deeply ingrained in how we work. We do not see technology as a set of tools but as a strategic driver of growth that shapes the way we deliver solutions across infrastructure, power, hydrocarbons and chemicals, and metals and mining. By aligning technological advancement with our core value of engineering excellence, we are not only responding to industry changes but also anticipating and shaping them, ensuring that our services remain relevant, impactful and sustainable.

2024 Performance Highlights

8,459 crore worth value engineering for customers

318 TechPride entries

113 Innovista entries

60 articles published

55 SMEs enrolled on various BIS committees

08 new technology offerings

07 patents granted

Engineering Excellence

Engineering excellence has always been at the heart of TCE. It is a philosophy that goes beyond technical competence to encompass a commitment to precision, innovation, sustainability and a deep understanding of client requirements. Over decades, this philosophy has been refined through the delivery of complex projects across multiple sectors, each with its own challenges and imperatives.

In infrastructure, engineering excellence means designing systems that support urban growth, withstand environmental pressures and improve the quality of life for communities. In the power sector, it means ensuring grid stability and reliability while adapting to renewable integration and decentralised energy systems. In metals and mining, it is seen in process efficiency, energy conservation and the responsible use of resources. In hydrocarbons and chemicals, it is reflected in solutions that uphold stringent safety standards and deliver operational reliability in highly regulated environments.

What defines TCE's approach is the ability to tailor solutions to the specific requirements of each sector while applying a consistent standard of quality and innovation. Engineering excellence here is not about repeating standard designs; it is about creating context-specific solutions that meet immediate technical needs while aligning with long-term strategic goals.

This approach ensures that every project we undertake is not only structurally sound but also aligned with broader sustainability and societal considerations.

Technology Excellence

Technology excellence at TCE is the framework that supports innovation, efficiency and future readiness across our work. Over the past few years, the company has invested in building digital engineering capabilities, structured knowledge systems and a forward-looking approach to emerging technologies.

A key part of this effort is the in-house knowledge management ecosystem. This platform gathers, organises and shares engineering intelligence across the organisation. It contains guides, best practices, design frameworks and automation tools, creating a shared repository that is accessible to every engineer. This system has transformed the way knowledge is used across projects by ensuring consistency, reducing rework and accelerating delivery. Engineers are empowered with accurate and validated information, which strengthens decision-making and supports innovative thinking.

TCE has also made significant strides in digital engineering. Tools such as Building Information Modelling, advanced simulations, digital twins and integrated project delivery platforms have been woven into our processes. These technologies allow us to produce designs that are more accurate, plan construction sequences with greater certainty and provide clients with real-time project insights. The adoption of these tools is not merely about keeping up with technology trends; it is about reshaping the way engineering is done, improving collaboration between disciplines and making project delivery more predictable and efficient.

The scope of TCE's technology excellence extends into areas like defence and space, where projects demand extreme precision, reliability and innovative thinking. By combining advanced simulation tools, material science expertise and engineering insight, we create solutions that meet the highest operational standards and contribute to strategic national objectives. Alongside these capabilities, TCE has developed a strong focus on emerging technologies. Dedicated teams study global advancements and assess their potential application in engineering. This includes areas such as energy transition, artificial intelligence in engineering, carbon capture, green hydrogen and smart infrastructure.

This foresight allows TCE to bring forward solutions that are future-ready and to offer clients technical advice that is grounded in both current knowledge and awareness of what is coming next.

Innovation and Value Engineering

Innovation at TCE is not an isolated activity. It is a cultural principle that runs through every project, supported by a deliberate focus on value engineering. This approach aims to achieve the best possible performance for every project while managing lifecycle costs and ensuring that safety and quality are never compromised. Our teams constantly examine design alternatives, materials and execution methods. They look for ways to optimise outcomes, improve efficiency and create value for clients. This is not a one-time effort but an ongoing practice that is reinforced by structured workshops, regular reviews and cross-functional collaboration.

Technology plays a vital role in this process. Simulation tools, data analytics and digital workflows are used to test designs, refine layouts and identify opportunities to reduce waste and enhance operational resilience. These practices have produced tangible results, including optimised plant layouts, reduced material movement, improved constructability and greater integration of modular approaches in structural design.

What makes TCE's innovation approach distinct is its practicality. We are not simply creating innovation for its own sake. Every idea must have a clear purpose and contribute directly to project delivery, client benefit or long-term sustainability. This culture allows us to deliver solutions that go beyond conventional thinking and consistently exceed expectations.

Artificial Intelligence in Engineering

Artificial intelligence is rapidly changing how engineering is approached worldwide, and TCE is actively integrating AI into its work. We recognise that AI has the potential to handle routine tasks, analyse large volumes of data and assist in faster, more accurate decision making.

TCE has initiated pilot programmes and proof-of-concept studies to explore how AI can enhance our engineering workflows. These studies are focused on real, high-impact applications. AI is being tested for its ability to generate drawings automatically, validate designs using predefined rules, interpret documents and provide predictive analytics to improve design optimisation.

One of the most significant developments has been the creation of internal AI-powered tools that give engineers instant access to TCE's knowledge base. Through intuitive chat interfaces, engineers can retrieve design standards, methodologies and technical data in seconds. This saves time, improves consistency across projects and supports compliance with engineering codes and regulations.

AI is not being positioned to replace engineering judgement. Instead, it is being used as an additional layer of intelligence that assists with defined tasks while engineers focus on higher-level problem solving and design thinking. This careful and pragmatic approach allows TCE to gain the benefits of AI while ensuring that the complexity and responsibility of engineering remain with experienced professionals.

To ensure the success of these initiatives, TCE has invested in training programmes and internal awareness campaigns. These efforts equip our workforce with the skills to use AI effectively and to understand how it fits into our processes. By doing so, we are creating a workforce that is comfortable with AI, able to harness its potential and ready to adapt as the technology evolves.

Health, Safety and Environment in Design

Safety is one of the strongest values at TCE, and it is embedded in every project we undertake. Our approach to Health, Safety and Environment (HSE) is proactive and integrated, ensuring that safety is part of the design process from the very beginning. Our HSE framework ensures that risks are addressed methodically at each stage of the project lifecycle. Ergonomics and human factors are considered during conceptualisation so that systems are designed with operators and maintenance teams in mind.

Layouts are carefully planned to allow safe movement and to ensure clear access in case of emergencies.

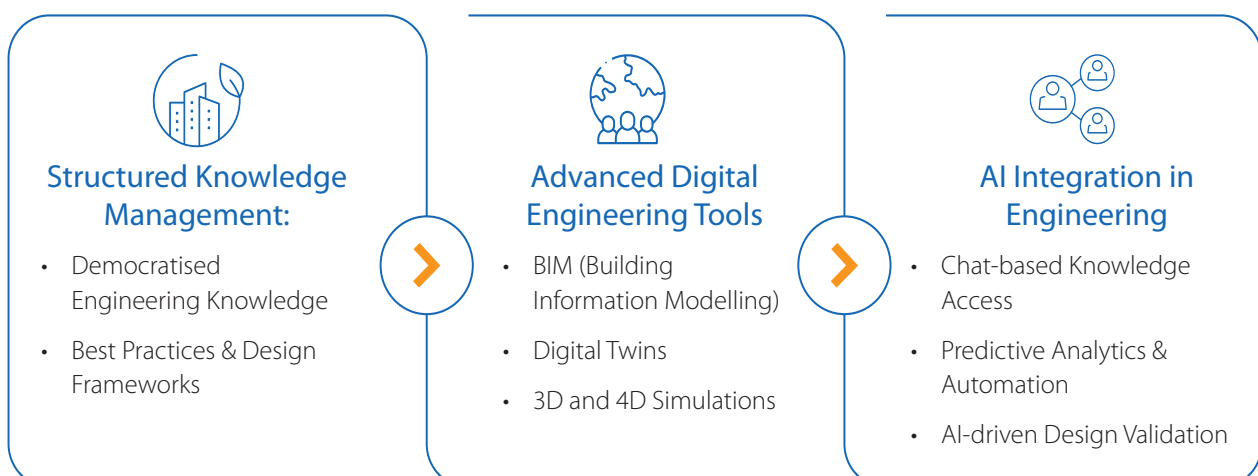
Every design undergoes comprehensive safety reviews, including hazard and operability studies, risk assessments and safety integrity level evaluations. These studies are not stand-alone exercises but are built into the design process, ensuring that safety is intrinsic to the final solution. We are also using digital safety modelling to simulate scenarios and identify potential risks before they arise. Control systems are developed with multiple safety layers, incorporating redundancy and fail-safe features. This approach creates designs that are inherently safe rather than relying solely on reactive measures. By embedding HSE into every design, TCE ensures that our projects protect lives, safeguard assets and meet both regulatory and client safety expectations.

Quality Assurance and Quality Control

Quality is fundamental to TCE's reputation and is embedded across our operations. It is not treated as a separate phase but as a guiding principle from the start of every project to the end. Our Quality Assurance and Quality Control framework creates the structure needed to maintain these high standards. Quality Assurance is concerned with planning and governance, ensuring that the correct processes are followed, the right tools are used and the right expertise is applied. Quality Control deals with the review of outputs, including drawings, calculations, specifications and models, to ensure that they meet both technical and client requirements.

Technology enhances these processes by providing greater traceability and control. Digital systems track documents and revisions, ensuring that the latest versions are always in use.

Technology Excellence



Quality dashboards provide real-time data on key performance indicators, allowing teams to respond quickly to any issues. TCE's commitment to quality is demonstrated through our ISO certifications, including ISO 9001 for Quality Management, ISO 14001 for Environmental Management and ISO 45001 for Occupational Health and Safety. These certifications reflect the standards we uphold across all our work and underline our commitment to excellence.

Growth Pillars of Engineering Excellence

The journey of engineering excellence at TCE is built on three interconnected pillars: sustainability, people and culture, and societal impact. These pillars guide our work and ensure that our growth benefits not only our clients but also the wider community.

1. Sustainability is present in every project we deliver. Designs are created with a long-term perspective, ensuring resource efficiency, reduced environmental impact and alignment with global climate goals.
2. People and culture are equally vital. TCE invests in developing its workforce, fostering collaboration and encouraging curiosity and innovation. Our engineers are empowered to question, explore and improve, which drives better outcomes for clients and strengthens our organisational capabilities.

3. The third pillar is societal impact. Our work creates infrastructure that connects communities, power systems that enable clean energy, and industrial facilities that operate responsibly and safely. Each project we deliver contributes to economic development, community wellbeing and national progress.

Technology is now central to how TCE achieves engineering excellence and creates value. It strengthens every part of our work, from digital design and artificial intelligence to safety-led engineering and rigorous quality systems. It allows us to respond to evolving client expectations, to support the global shift towards cleaner and more efficient systems, and to deliver solutions that are technically sound and environmentally responsible.

By embedding technology thoughtfully into our engineering processes, TCE is not merely adapting to change; we are helping to define how engineering will evolve. Every project, every innovation and every investment in technology reflects our commitment to building solutions that combine intelligence, sustainability and responsibility. As industries continue to transform, we remain focused on using technology as the catalyst for engineering excellence and for growth that benefits our clients, our organisation and society at large.



Sector

Infrastructure Business Review

The Infrastructure Business Unit (IBU) at Tata Consulting Engineers continues to play a central role in shaping the nation's development priorities. With a holistic approach that integrates sustainability, digitalisation, and inclusive growth, IBU delivers complex, multi-sectoral infrastructure solutions that serve people, cities, industries, and ecosystems. Its expertise spans water and environment, built environment, and transportation infrastructure, addressing both immediate urban needs and long-term national goals.

2024-25 Performance Highlights

17%

share in total revenue

17%

share in total acquisition

958

workforce on 31st March 2025

2,501

crore worth value engineering for customer

Industry Trends and Market Outlook

India's infrastructure sector is undergoing a transformative phase, shaped by demographic change, industrial expansion, rapid urbanisation, and the need for sustainable solutions. Nearly half of India's population is expected to reside in urban areas by 2050, creating unprecedented demand for inclusive, resilient, and climate-responsive infrastructure. This demand spans metro systems, urban transit corridors, roads and highways, airports, water systems, and urban services designed to enhance quality of life and economic productivity.

Water security is now central to infrastructure planning. The focus has shifted to river rejuvenation, desalination, interlinking of rivers, and circular water economy models that reduce waste and encourage reuse. Flagship national programmes such as the Jal Jeevan Mission and Atal Mission for Rejuvenation and Urban Transformation (AMRUT) are being reinforced by digital technologies, with digital twins and predictive modelling being used for asset management, monitoring, and lifecycle planning.

The Government of India's drive to establish the country as a global manufacturing hub has spurred investments in sectors like semiconductors, solar photovoltaics, electric vehicles, and defence manufacturing. These developments have created the need for world-class industrial clusters and integrated infrastructure ecosystems. Projections indicate infrastructure investment will grow at a CAGR of almost 10 per cent between 2025 and 2030, underpinned by strong domestic and international funding.

Transport modernisation remains a major thrust, with high-speed rail corridors, expressways, ports, and multimodal logistics hubs progressing rapidly. Defence and strategic infrastructure are also receiving attention due to evolving geopolitical imperatives, while destination-based master planning is driving tourism infrastructure.

Technology is increasingly integral to infrastructure creation and management. Artificial intelligence and machine learning are being deployed for flood forecasting and traffic management; AR/VR is being used for immersive planning and visualisation; and digital twins are supporting asset lifecycle optimisation and proactive maintenance.

India has already attracted more than USD 35 billion in foreign direct investment into infrastructure, and this figure is expected to rise as infrastructure investment moves from 5.3% of GDP to 6.5% by FY29. Collectively, these trends are redefining the future of infrastructure development, placing sustainability, digitalisation, and resilience at the heart of design and delivery.

Key Areas of Expertise

The Infrastructure Business of TCE provides integrated, end-to-end services across Water and Environment, Built Environment, and Transportation Infrastructure, consistently embedding sustainability and digitalisation into every project.

Water and Environment: IBU delivers comprehensive solutions across water supply, wastewater treatment, desalination, stormwater drainage, irrigation, and integrated water resource management. Its expertise spans the entire value chain of solid waste management, from waste-to-energy and compressed biogas systems to secure landfill design. The business also provides environmental and social impact assessments, climate action planning, and biodiversity-focused solutions. Projects increasingly include tunnel design for water conveyance, water-energy audits, leakage reduction strategies, and ecological rejuvenation programmes, ensuring water security for cities and industries alike.

Built Environment: IBU supports industrial, institutional, and urban projects, ranging from large-scale manufacturing zones and special investment regions to healthcare and education facilities. The team's designs prioritise operational efficiency, lifecycle performance, and environmental compliance. By using Building Information Modelling (BIM) and 3D engineering, IBU ensures accuracy, faster execution, and green building certification, integrating sustainable architecture principles across projects.

Transportation: IBU's transportation expertise spans metro and light rail systems, roads and highways, ports, bridges, and airport infrastructure. Its services include integrated design and engineering to improve connectivity across economic corridors and industrial hubs. Every transportation solution is built with an emphasis on multimodal integration, low-emission mobility, and resilience to climate extremes, reflecting the unit's commitment to decarbonisation and sustainable logistics.

Business Performance and Capabilities

FY25 was a year of strong performance for the Infrastructure Business Unit, underlining TCE's role as a partner in nation-building and sustainable development.

IBU played a key consultancy role in a major river pollution abatement programme funded by an international development agency, aimed at preventing untreated sewage discharge into rivers. This project highlighted TCE's leadership in urban environmental infrastructure and ecological restoration, aligning engineering expertise with broader sustainability goals.

The business expanded its global footprint, securing a prestigious engineering assignment for a solar PV manufacturing facility in North America – a project that contributes to global energy transition efforts and showcases TCE's ability to deliver clean technology infrastructure at international standards.

Domestically, IBU delivered engineering for major water reuse infrastructure in western India, including the design of tunnel systems that will improve water resilience for urban populations. The unit also enhanced its maritime portfolio by providing consultancy for dredging and port-related developments, reinforcing TCE's coastal engineering capabilities.

IBU provided advisory support for urban mobility initiatives, including feasibility and DPR studies for metro and transit authorities. The business also worked on institutional infrastructure, providing services to academic and research institutions, while contributing to social and cultural projects such as landmark temples and hospitals.

In the waste-to-energy domain, IBU drove projects that transform urban waste into clean energy, improving urban sanitation and reducing landfill pressures. It also led a national study on bio-methanation, creating a policy framework to scale up this sustainable technology nationwide.

This wide-ranging portfolio illustrates IBU's strength in handling complex, multidisciplinary assignments, both in India and globally, combining engineering excellence with sustainability, innovation, and digital solutions.

Key Initiatives

Several strategic initiatives marked FY25 for the Infrastructure Business Unit. IBU's integrated approach to urban infrastructure planning supported the modernisation of city systems and institutional campuses, enhancing liveability, connectivity, and resilience. Its expertise in water reuse, recycling, and river rejuvenation addressed pressing urban water challenges, while delivering measurable ecological benefits.

The business played a vital role in energy transition efforts by engineering facilities for solar PV production and supporting green building developments, reinforcing India's net-zero ambitions and sustainable industrialisation agenda. IBU continued to create impactful healthcare, education, and cultural infrastructure, contributing to social inclusion and community well-being. Its consultancy in maritime and logistics improved port efficiency, multimodal transport, and coastal development, demonstrating a systems-thinking approach to infrastructure planning.

The unit also embedded climate resilience into its projects, incorporating flood-proofing, risk-informed planning, and nature-based solutions. This positioned IBU as a knowledge leader in adaptation infrastructure. Digitalisation remained a central theme, with the use of AI/ML tools, BIM, and digital twins to improve design accuracy, project transparency, and delivery speed. This enabled IBU to offer clients modern, tech-enabled solutions while optimising resources and ensuring sustainability.

Future Priorities

Looking ahead, the IBU will focus on deepening its impact and expanding its capabilities in line with national priorities and global trends.

- **In water**, IBU will strengthen services in wastewater recycling, desalination, and digital asset management, ensuring that urban and industrial projects meet the dual goals of efficiency and sustainability.
- **In urban and regional planning**, the unit will support climate-resilient and inclusive infrastructure, ensuring projects are designed to withstand future environmental and demographic pressures.
- **In manufacturing** infrastructure, IBU will deliver world-class facilities for semiconductors, defence, EVs, and solar PV, contributing to India's ambition to become a global manufacturing hub.
- **In transportation**, there will be a continued focus on multimodal integration, smart mobility, and low-emission technologies to strengthen connectivity, support logistics modernisation, and reduce carbon footprints.

IBU will also scale its digital engineering capabilities, including increased application of AI, AR/VR, and digital twins for design, simulation, and lifecycle asset management. Its sustainability agenda will expand bio-methanation, advance green building compliance, and reinforce the circular economy by converting waste into resources. With India investing heavily in strategic infrastructure, IBU is poised to lead major projects across defence, tourism, healthcare, and education, ensuring that every initiative reflects TCE's ethos of Engineering Excellence, Enabling Growth.

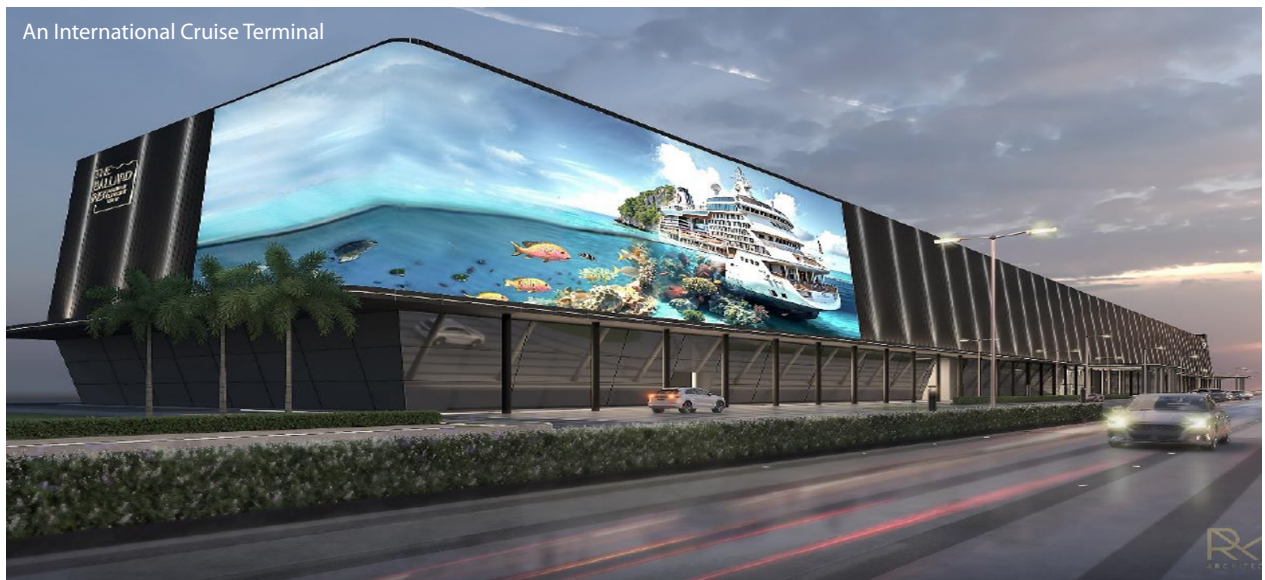
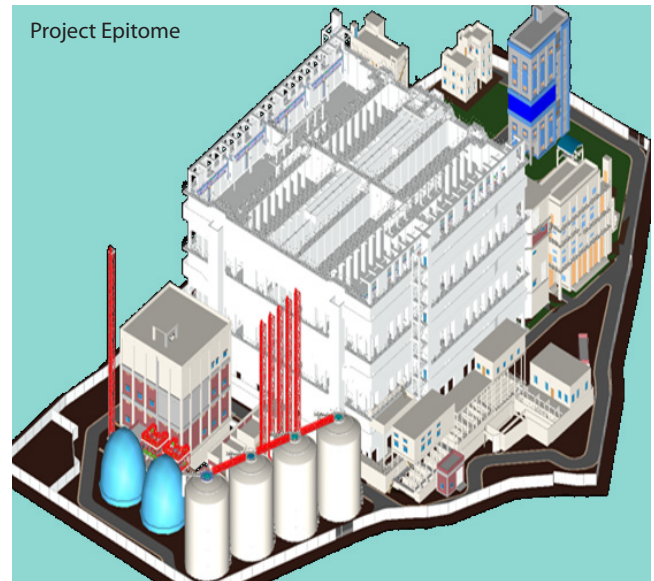
“Infrastructure is the backbone of economic progress and societal well-being. At TCE, we approach this responsibility with a vision to design and deliver projects that are resilient, inclusive, and sustainable. By combining advanced engineering practices with digital innovation and a deep commitment to community impact, we are shaping infrastructure that not only supports today's needs but also enables the growth and possibilities of tomorrow.”



Nitin Kansal

Business Head - IBU

Projects 2024-25



Sector

Power Business Review

With over six decades of engineering excellence, the Power Business Unit (PBU) of Tata Consulting Engineers continues to be a key contributor to India's energy infrastructure and a trusted partner globally. The unit has designed over 300 gigawatts of power generation capacity spanning thermal, nuclear, hydro, and renewable sources. It has engineered more than 85 per cent of the country's civilian nuclear infrastructure, over 12,000 circuit kilometres of transmission and distribution lines, and more than 250 substations. PBU operates across the entire electricity value chain, offering end-to-end services that include feasibility studies, basic and detailed engineering, procurement support, inspection, construction supervision, and commissioning assistance. The unit also provides asset sustenance services to optimise plant operations and improve performance over time.

2024-25 Performance Highlights

21%

share in total revenue

26%

share in total acquisition

1096

workforce on 31st March 2025

1,259

crore worth value engineering for customer

Industry Trends and Market Outlook

The global power sector is undergoing a period of profound change as nations balance rising energy demand with decarbonisation goals. India is at the heart of this shift. As one of the fastest-growing economies, the country's electricity consumption is projected to triple by 2040, driving significant investment in generation, transmission, and storage.

The thermal power segment continues to play a crucial role in meeting India's baseload requirements. The Government of India has announced major investments in supercritical and ultra-supercritical technologies, targeting 80 gigawatts of new coal-fired capacity by 2032. These plants are designed to be more efficient and environmentally responsible. At the same time, existing assets are being modernised for flexible operations, with co-firing options for biomass, green hydrogen, and ammonia, supported by growing initiatives in carbon capture and utilisation.

Nuclear power is regaining strategic momentum. India aims to develop fleet-mode reactors to deliver 100 gigawatts of nuclear capacity by 2047. Globally, interest in Small Modular Reactors (SMRs) is rising, and India has launched the Bharat Small Reactor initiative to enable private sector participation. Nuclear energy is increasingly recognised as a clean and dependable contributor to the energy mix.

Hydropower is also experiencing a revival. Large hydro projects and pumped storage plants are being prioritised for their ability to provide balancing capacity for renewable energy. Many older hydropower stations are undergoing refurbishment to improve performance and extend their operational life. Pumped storage projects, including those using abandoned mine sites, are being explored as natural energy storage solutions.

Renewables remain the fastest-growing segment. India is committed to its ambitious target of 500 gigawatts of renewable capacity, with over USD 190 billion expected to be invested. Solar PV, wind, and hybrid projects are expanding rapidly, supported by the falling cost of solar modules and government incentives for domestic manufacturing. Floating solar is an emerging opportunity, particularly on reservoirs. Globally, renewable energy investment continues to grow, with the Middle East and North Africa making significant strides in green hydrogen and ammonia for export.

In transmission and distribution (T&D), High Voltage Direct Current (HVDC) systems are increasingly being deployed for long-distance transmission to reduce energy losses. Battery Energy Storage Systems (BESS) have become critical for integrating intermittent renewable sources into the grid. Digital technologies such as asset performance management tools are also helping utilities move from reactive to predictive maintenance models.

In this dynamic environment, Tata Consulting Engineers' Power Business Unit (PBU) continues to deliver trusted, end-to-end engineering solutions across the entire power value chain.

Key Areas of Expertise

The Power Business Unit brings over six decades of expertise, offering services across all power generation technologies and the entire asset lifecycle.

Thermal Power: PBU provides solutions for large coal plants, captive power and cogeneration units, and waste-to-energy facilities. The team also supports repurposing older assets for flexible operations, integrating green fuels such as hydrogen and ammonia, and upgrading systems for emission compliance.

Nuclear Power: TCE has engineered more than 85 per cent of India's nuclear power plants and related infrastructure. The scope of work spans detailed design, safety systems, containment engineering, cooling water systems, and specialist civil and structural services for nuclear installations.

Hydropower: Expertise includes hydrological and hydraulic studies, seismic and structural design, 3D finite element modelling (FEM) for dams, electromechanical and hydro-mechanical engineering, underground civil works, water resources planning, dam-break analysis, and execution in EPCM mode.

Renewable Energy: PBU offers end-to-end services for solar, wind, hybrid and floating solar PV (FSPV) projects, from conceptualisation to commissioning. The unit also provides design and integration support for energy storage and hybrid systems.

Transmission & Distribution (T&D): Capabilities include AIS, GIS and HVDC substation design, transmission network planning, monopole and tower engineering, grid compliance studies for renewables, power system studies, technical due diligence, and engineering for grid-connected battery storage.

Business Performance and Capabilities

FY25 was a year of robust growth and impact for the Power Business Unit, with major achievements across all focus areas.

In thermal power, the unit secured eleven new coal-based projects for detailed engineering and provided owner's engineering services for several large-scale supercritical plants. Basic engineering services were delivered for a gas-fired project in Australia, marking TCE's first such assignment in that region. PBU also provided consulting for power plants in the Philippines and pre-bid support to help clients win major international tenders.

In hydropower, PBU completed advanced 3D FEM analysis for a concrete dam over 200 metres tall and commissioned units for India's first off-river pumped storage project. The team carried out dynamic seismic analysis for a dam located in a high-risk seismic zone, validated by a national academic institution. Engineering services are underway for some of India's largest planned pumped storage facilities, and a white paper was submitted to the government on repurposing abandoned coal mines for pumped storage development.

The renewable energy team expanded its global footprint by securing projects in Australia, Europe, and the Middle East. The unit is developing offshore floating solar projects for a Middle Eastern utility and has established a new dedicated engineering centre (DEC) for a global energy major. Expertise in battery storage and hybrid plant integration has strengthened TCE's position in next-generation renewable solutions.

In T&D, PBU built in-house capabilities for grid compliance studies aligned with national transmission guidelines, delivered power system studies for industrial and utility clients, and provided pre-bid engineering support for major substation projects. A large-scale electricity access project was completed for a national utility in East Africa, involving surveys, detailed project reports, and the development of medium- and low-voltage networks.

Key Initiatives

PBU undertook a series of initiatives to strengthen technical expertise and enhance operational efficiency.

- **Thermal:** Entered the Australian market with a major gas-fired project, establishing a new presence and deepening global reach.
- **Hydro:** Adopted advanced digital engineering tools, new data collection techniques, and 3D modelling to improve precision and efficiency in design.
- **Renewables:** Expanded floating solar and hybrid capabilities while strengthening energy storage engineering expertise.
- **T&D:** Advanced digital engineering by standardising design documents and methodologies and enhanced skills in specialised software platforms.

Knowledge management and workforce training remained central to these initiatives, ensuring the team is prepared for future opportunities.

Strategic collaborations were pursued to share expertise and strengthen project execution capabilities.

Future Priorities

Looking ahead, the Power Business Unit is committed to deepening its leadership in clean energy technologies while continuing to support traditional power segments.

- **Thermal Power:** Focus will remain on making plants flexible, co-firing with alternative fuels, and ensuring carbon capture readiness for existing and future facilities.
- **Nuclear:** Expand work on fleet-mode reactors and small modular reactors, enabling safe and scalable clean power solutions.
- **Hydro:** Drive development of pumped storage projects, particularly mine-based schemes, while providing advanced engineering and advisory services.
- **Renewables:** Scale hybrid projects, floating solar, and battery storage, supported by digital twin and smart grid solutions.
- **T&D:** Build further expertise in HVDC, BESS, and grid compliance, expanding support for industrial and utility-scale infrastructure worldwide.

By aligning these priorities with global energy transition trends, TCE will continue to deliver solutions that are sustainable, technology-driven, and transformative.

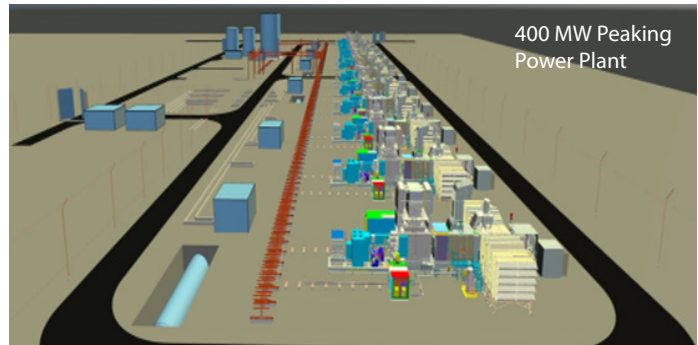
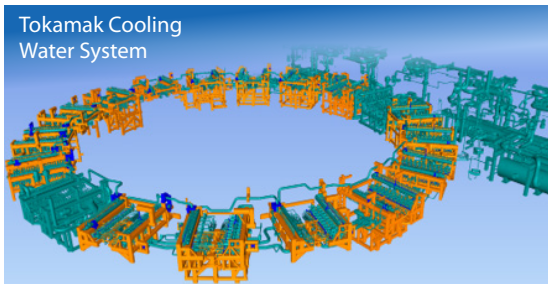
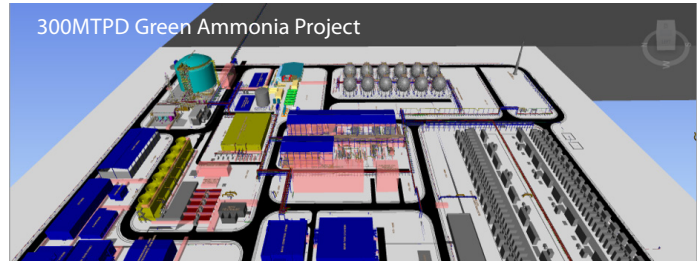
“*The power sector is at the heart of the world’s energy transition, and at Tata Consulting Engineers, we see this as an opportunity to lead with purpose. Our focus on engineering excellence and sustainable solutions, from nuclear and hydro to renewables and transmission, is helping shape a future-ready power ecosystem. By combining deep technical expertise with innovative thinking, we are enabling growth for our clients, our nation, and the global community.*”



Ramadurai Raghavan

Business Head - PBU

Projects 2024-25



450 MW Gas-fired Power Plant

Sector

Hydrocarbons and Chemicals Business Review

The Hydrocarbons and Chemicals Business Unit at Tata Consulting Engineers continues to play a pivotal role in supporting industrial growth, energy transition, and sustainability aspirations across India and global markets. With an extensive portfolio that spans oil and gas, refining, petrochemicals, speciality chemicals, fertilisers, and emerging fuels, the business delivers comprehensive engineering solutions from concept to commissioning. It serves as a key enabler in helping clients navigate industry transformations, enhance operational performance, and achieve sustainable development goals.

2024-25 Performance Highlights

18%

share in total revenue

16%

share in total acquisition

872

workforce on 31st March 2025

202

crore worth value engineering for customer

Industry Trends and Market Outlook

The hydrocarbons and chemicals sector is at a pivotal moment, driven by three powerful forces: the global energy transition, the demand for sustainable fuels, and the shift towards high-value chemicals and advanced manufacturing. This convergence is reshaping the sector's priorities and presenting engineering firms with opportunities to lead transformative change.

Globally, sustainability has moved to the forefront. Governments and industries are accelerating investments in green fuels like green hydrogen, green ammonia, and green methanol, which are now central to decarbonisation strategies. Green ammonia is emerging as a game-changer, projected to grow at a remarkable compound annual growth rate of over 60 per cent between 2025 and 2035, as it becomes an essential carrier for renewable energy, a sustainable marine fuel, and a key feedstock for steel, fertilisers, and chemicals. Green methanol is also rapidly gaining ground, with its market size expected to grow from USD 2.6 billion in 2024 to over USD 11 billion by 2030.

The semiconductor industry is another major driver. Fueled by artificial intelligence, electric vehicles, data centres, and advanced electronics, the global semiconductor market is forecast to hit USD 755 billion in 2025 and exceed USD 2 trillion by 2032. This surge is creating demand for semiconductor assembly and testing facilities, electronics-grade chemicals, and specialty glass and silicon manufacturing, where engineering expertise plays a critical role.

Battery and Battery Energy Storage Systems (BESS) are also evolving rapidly, with technologies such as solid-state batteries promising higher energy densities, greater safety, and faster charging. These advances are redefining energy storage for electric vehicles, aerospace, and grid-scale applications. Meanwhile, the chemicals sector, including specialty and performance chemicals, continues to grow at a healthy pace (over 12 per cent CAGR), supported by demand from pharmaceuticals, agriculture, and consumer goods, and reinforced by a strong push towards bio-based and sustainable chemical processes.

For TCE, these global shifts create significant opportunities. As industries decarbonise, diversify, and digitise, they require trusted partners who can deliver integrated solutions for the next generation of plants, fuels, and materials.

Key Areas of Expertise

TCE's Hydrocarbons and Chemicals Business Unit (HCBU) combines decades of multidisciplinary engineering expertise with a forward-looking approach to innovation. Its scope spans traditional hydrocarbons to cutting-edge sustainable technologies, allowing the team to support clients across the full spectrum of the energy and chemicals landscape.

- **Sustainable Fuels:** HCBU has built deep expertise in the engineering of green hydrogen, ammonia, and methanol projects. The team delivers end-to-end services, from feasibility studies and front-end engineering design (FEED) to detailed engineering, EPC support, and commissioning. Projects include biomass-to-hydrogen conversion and biofuels, supporting the transition to low-carbon energy systems.
- **Semiconductors and Advanced Manufacturing:** The business has entered the semiconductor domain, providing specialised engineering for outsourced semiconductor assembly and testing (OSAT) facilities and fabrication units. It also designs electronics-grade silicone and advanced glass manufacturing facilities for solar and display applications.
- **Chemicals and Specialty Chemicals:** The team supports the entire value chain for petrochemicals, specialty chemicals, and fertilisers, with a strong focus on process safety, operational reliability, and environmental compliance.

- **Batteries and BESS:** HCBU has delivered engineering, procurement, and construction management (EPCM) services for some of India's largest lithium-ion battery gigafactories, providing solutions for manufacturing, storage, and integration into energy systems
- **Dedicated Engineering Centres (DECs):** The unit operates DECs for global clients, offering integrated engineering and programme management support that fosters long-term partnerships and operational excellence.

Across all these domains, the team leverages digital tools, simulation technologies, and knowledge-driven frameworks to ensure every solution is future-ready, efficient, and sustainable.

Business Performance and Capabilities

FY25 marked a landmark year for HCBU, with major strides across sustainable fuels, advanced manufacturing, and chemicals.

- The unit secured and delivered some of its largest-ever projects, including a strategic EPCM contract for one of India's biggest lithium-ion battery manufacturing plants, a cornerstone in India's ambition to lead in battery and energy storage production.
- HCBU entered the semiconductor space in a significant way, winning a major contract for an advanced OSAT facility, a strategic breakthrough that positions TCE as a partner of choice for the electronics manufacturing ecosystem.
- Internationally, the unit was appointed as engineering consultant for a large-scale green ammonia plant in the Middle East. This facility will produce ammonia from renewable sources for marine fuel and industry use, demonstrating TCE's role in global decarbonisation efforts.
- The team also delivered FEED services for an innovative chemical recycling plant in India, designed to convert waste plastics into chemical feedstock, reinforcing the circular economy.

HCBU's strong project pipeline, client trust, and ability to handle complex assignments in EPCM and OEPC roles underline its versatility and scalability. Importantly, over 70 per cent of new business came from repeat clients, a testament to the quality and reliability of its delivery.

Key Initiatives

During the year, HCBU pursued initiatives that strengthened its capabilities and market position:

- **Expansion into Future Technologies:** By securing strategic projects in semiconductors, batteries, and green fuels, the unit expanded into high-growth, future-facing sectors.
- **Digital Engineering and Productivity:** The Accelerate Delivery Centre (ADC) was leveraged to improve project timelines, reduce engineering hours, and enhance productivity across assignments.
- **Strategic EPC Partnerships:** HCBU forged deeper ties with EPC contractors in international markets, especially in the Middle East, creating a stronger service offering in operational expenditure (OPEX) and project execution.
- **Knowledge and Talent Development:** The business empanelled external industry experts and collaborated closely with TCE's technology teams to enhance internal knowledge, support innovation, and maintain high technical standards.
- **Innovation in Circular Economy:** The team took on chemical recycling projects and explored innovative applications for carbon capture, positioning itself as a solutions provider for clients seeking sustainable, circular operations.

Future Priorities

HCBU is poised for accelerated growth and its strategic priorities include:

- **Scaling Sustainable Fuels:** Continue leading in green hydrogen, ammonia, and methanol projects, building on proven experience to deliver larger and more complex facilities.
- **Deepening Semiconductor and Battery Capabilities:** Strengthen engineering expertise in OSAT, fabrication, and battery manufacturing to support India's ambitions in electronics and energy storage.
- **Digital Integration:** Embed digital engineering tools like digital twins, AI-assisted design, and advanced simulation even more deeply into workflows for faster, more predictable, and cost-effective delivery.
- **Global Expansion:** Build on its foothold in the Middle East, Europe, and North America with strategic project wins and long-term collaborations, while supporting India's domestic industrial growth.
- **Innovation and Partnerships:** Collaborate with research institutions, global technology providers, and industry bodies to stay ahead of emerging trends and co-create innovative solutions.

Through these priorities, HCBU will continue to deliver on TCE's vision of Engineering Excellence, Enabling Growth, helping clients embrace energy transition, adopt future-ready manufacturing, and drive sustainable development.

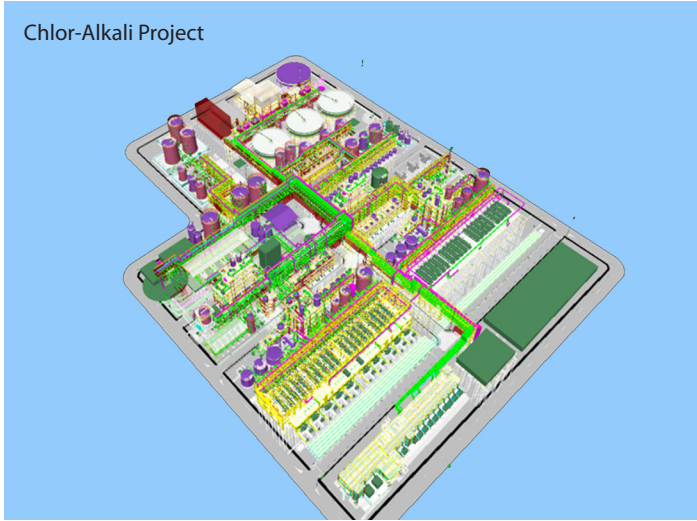
“The hydrocarbons and chemicals sector is standing at the crossroads of transformation, where sustainability, innovation, and digitalisation are shaping the future. At TCE, we are not just responding to these changes, we are enabling them. By combining deep domain expertise with cutting-edge technologies, we are delivering solutions that drive decarbonisation, accelerate the energy transition, and create enduring value for our clients and communities worldwide.”



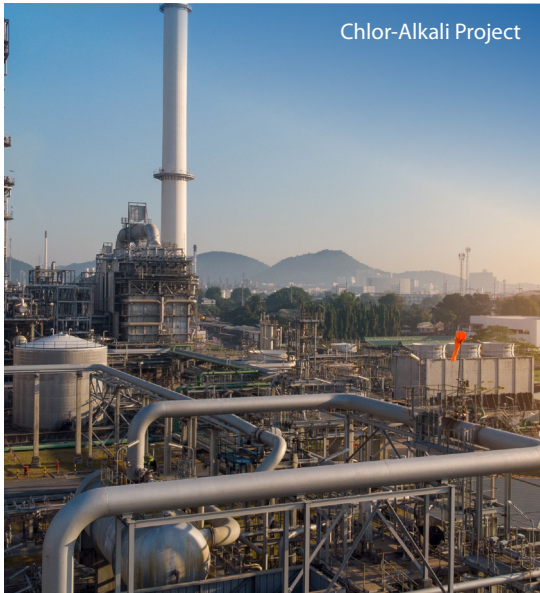
Mozammel Biswas
Business Head - HCBU

Projects 2024-25

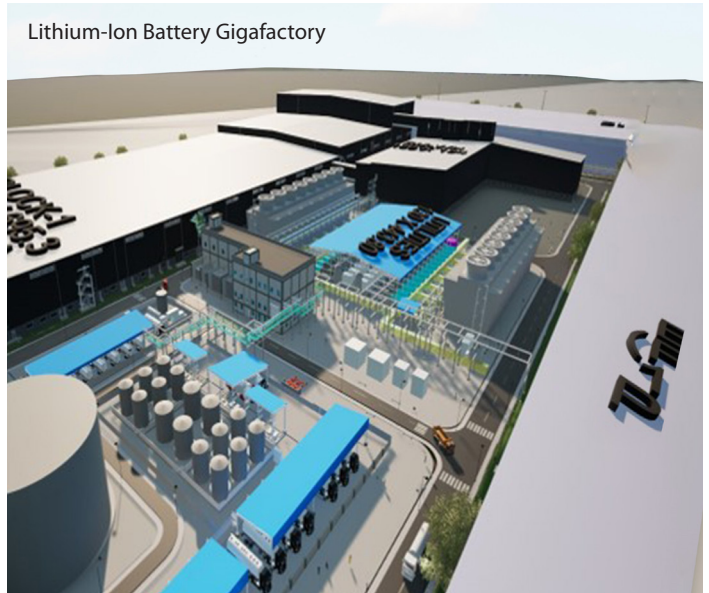
Chlor-Alkali Project



Chlor-Alkali Project



Lithium-Ion Battery Gigafactory



Semiconductor Assembly and Testing Facility



Chemical Recycling Plant



Sector

Mining and Metallurgy Business Review

The Mining and Metallurgy Business Unit (MMBU) at Tata Consulting Engineers continues to anchor itself as a critical enabler of India's industrial growth and global sustainability transition. Drawing upon deep technical expertise and domain knowledge, the business unit delivers cutting-edge engineering solutions across ferrous and non-ferrous sectors. MMBU operates at the intersection of traditional materials engineering and modern innovation, offering capabilities that align with global sustainability initiatives, resource efficiency, and the growing emphasis on a circular economy.

2024-25 Performance Highlights

14%

share in total revenue

11%

share in total acquisition

648

workforce on 31st March 2025

5,613

crore worth value engineering for customer

Industry Trends and Market Outlook

The global mining and metallurgy sector is undergoing a defining transformation, balancing the dual imperatives of driving industrial growth and enabling the energy transition. The sector's future is being shaped by evolving demand patterns, aggressive decarbonisation targets, and rapid technological innovation across the metals value chain.

In the ferrous space, steel continues to anchor infrastructure, construction, and manufacturing industries worldwide. Global steel demand is expected to grow by 1.2 per cent in 2025, with the industry value projected to reach USD 1.8 trillion, and longer-term forecasts point to an expansion to USD 2.3 trillion by 2030 at a compound annual growth rate of over four per cent. The industry is shifting steadily toward lower-carbon production methods, with Electric Arc Furnace (EAF) technology emerging as a preferred route because of its reliance on scrap recycling and its ability to deliver significant emissions reductions.

Simultaneously, hydrogen-based direct reduced iron (DRI) processes are being piloted and scaled up in developed markets, backed by strong ecosystems for renewable energy, hydrogen, and scrap availability. India has emerged as a key growth driver within this global context. Crude steel production reached 143 million tonnes in FY24, growing 12.6 per cent year-on-year. With the government's stated ambition to scale capacity to 300 million tonnes by 2030, the industry is prioritising high-strength low-alloy steel production and innovative fossil-fuel-free steelmaking routes, aligned to its long-term decarbonisation targets.

The non-ferrous sector is equally buoyant, with aluminium and copper continuing to underpin energy transition and industrial expansion. The global non-ferrous metals market is expected to touch USD 1.23 trillion by FY26, driven by strong demand from electric vehicles, renewable energy systems, electronics, and infrastructure development. India's non-ferrous metals industry is projected to grow at nearly six per cent CAGR between 2025 and 2031, supported by government policies that prioritise self-reliance in critical materials and promote recycling and circular economy initiatives. Macroeconomic factors also remain highly influential. Commitments to net zero, the shift to hydrogen-enabled steelmaking, rising electrification of transport and industrial processes, and the growing emphasis on recycled metals are reshaping industry priorities. Policy support in the form of green mandates, sustainability-linked financing, and incentives for clean technologies is accelerating this transformation. For engineering consultants like Tata Consulting Engineers (TCE), these trends create significant opportunities to help design the plants, processes, and solutions that will power a greener and more competitive future for the mining and metallurgy sector.

Key Areas of Expertise

MMBU at TCE brings integrated engineering expertise across the entire ferrous and non-ferrous spectrum, spanning process development, project engineering, and sustainability-linked solutions.

In the ferrous space, the team has developed strong BF-BOF capabilities across all major production routes, including conventional DRI with Electric Arc Furnaces (EAF), DRI with refining, and hydrogen-based DRI technologies. MMBU also supports the production of speciality steels, including electric-grade and defence-grade variants. Our engineering services are designed to improve energy efficiency, reduce emissions, and embed sustainability into both new facilities and retrofitted plants.

In the non-ferrous space, In the non-ferrous space, MMBU delivers solutions across the aluminium, copper, zinc, and lead value chains, covering refining, smelting, downstream processing, and material handling. The business has strong expertise in aluminium and copper scrap recycling, enabling clients to adopt greener and more circular production processes.

In beneficiation, TCE engineers deliver cutting-edge solutions for low-grade ore processing, optimised recovery, and tailings management. Our designs are benchmarked against the Global Industry Standard on Tailings Management (GISTM 2020) and aligned with global best practices for safety and environmental stewardship, ensuring zero liquid discharge (ZLD).

MMBU has successfully demonstrated simultaneous beneficiation of hematite and magnetite, helping clients maximise resource recovery while minimising environmental impact. A strong sustainability orientation underpins all these services. From designing integrated scrap recycling facilities to creating advanced tailings storage and reuse systems, the unit works to align client operations with evolving regulatory norms, global standards, and broader societal expectations.

Business Performance and Capabilities

The Mining and Metallurgy Business Unit has demonstrated strong performance and resilience in FY25, building on its established leadership in both ferrous and non-ferrous sectors. On the domestic front, MMBU played a pivotal role in advancing large-scale projects across the aluminium, copper, and steel industries. Roughly 40 per cent of the unit's project acquisitions during the year came from India, focused on downstream expansion, asset optimisation, and greenfield developments.

Internationally, MMBU has broadened its footprint through strategic project wins in Europe, North America, and Asia-Pacific, which together contributed nearly 60 per cent of the total project acquisition value. These global assignments range from designing integrated green steel plants to providing sustainability-linked solutions for international clients. They also demonstrate growing demand for TCE's engineering expertise in delivering hydrogen-ready plants, recycling solutions, and low-carbon metallurgy processes. The business unit's delivery model remains highly flexible, with the capability to operate in both EPCM and Owner's Engineer and Project Consultant (OEPC™) roles, supported by a DEC and onsite-offshore delivery approach. With robust engineering centres, a strong ecosystem of partners, and digital integration across projects, MMBU continues to deliver projects that meet demanding technical requirements and stringent sustainability goals while managing complexity across geographies.

Key Initiatives

MMBU has pursued several strategic initiatives this year to reinforce its leadership and position the business for future growth.

- **Advancing the Green Transition:** The unit has been at the forefront of designing and engineering large-scale green steel facilities, both in India and internationally. These projects deepen MMBU's technological expertise in hydrogen-based production and reinforce its role as a trusted partner for clients looking to decarbonise operations.

- **Recycling and Circular Economy Leadership:** MMBU has strengthened its position as a pioneer in aluminium and copper recycling, leading engineering projects that cover the entire recycling value chain, from collection and processing to downstream integration. These efforts are setting new benchmarks for circular economy practices in the sector.
- **Strategic International Expansion:** Key project wins in Asia Pacific, Europe and North America have helped the unit expand its global presence. These assignments underline TCE's growing reputation as an international engineering partner capable of delivering solutions that meet the highest standards of technology, sustainability, and governance.
- **Digital and Process Innovation:** The team has embraced digital engineering and simulation tools to enhance design accuracy, streamline project timelines, and improve cost efficiency. By embedding innovation into every stage of delivery, MMBU has enhanced project predictability and client confidence.
- **Capability Building:** Recognising the complexity of metallurgy projects, MMBU has invested in workforce training and knowledge-sharing, ensuring that its engineers are equipped with the latest technical, digital, and sustainability competencies.
- **Integrated Steel Plants, Hydrogen-Based Steel, and Low-Carbon Technologies:** The unit will continue to strengthen its capabilities in hydrogen-based DRI and Electric Arc Furnace technologies, enabling clients to transition to the next phase of low-carbon steel production.
- **Low-Grade Ore Beneficiation and New-Age Metals such as Silicon, Nickel, and Lithium; Scaling Recycling Solutions:** With growing global demand for recycled aluminium, copper, and steel, MMBU is focused on accelerating the design and delivery of integrated recycling and waste-to-resource systems, supporting clients in adopting circular manufacturing practices.
- **International Market Growth:** With demand for sustainable metallurgy solutions rising worldwide, MMBU will expand its reach by building on strategic wins in Europe, North America, Africa, the Middle-East and Asia-Pacific, and leveraging partnerships to enter new markets.
- **Strategic Collaborations:** The business will continue to strengthen partnerships with technology providers, global EPCs, research institutions, and industry alliances to remain at the cutting edge of emerging technologies and bring innovative solutions to clients.

Through these priorities, MMBU is well positioned to deliver on TCE's promise of Engineering Excellence, Enabling Growth, helping clients meet sustainability goals, adopt future-ready technologies, and create long-term value for industries and communities alike.

Future Priorities

Looking ahead, MMBU is committed to driving sustainable growth by combining engineering expertise with innovation and foresight.

“Mining and metallurgy are evolving at an unprecedented pace, driven by the demand for green steel, circular economy practices, and sustainable resource use. At TCE, we are applying engineering excellence to help reimagine this sector, from designing low-carbon processes to enabling recycling ecosystems and advancing digital innovation. By aligning with global sustainability goals, we are enabling growth that is both responsible and transformative.”



Biswajit Bhattacharyya
Business Head - MMBU

Projects 2024-25

Brownfield Expansion Project for an Integrated Steel Plant



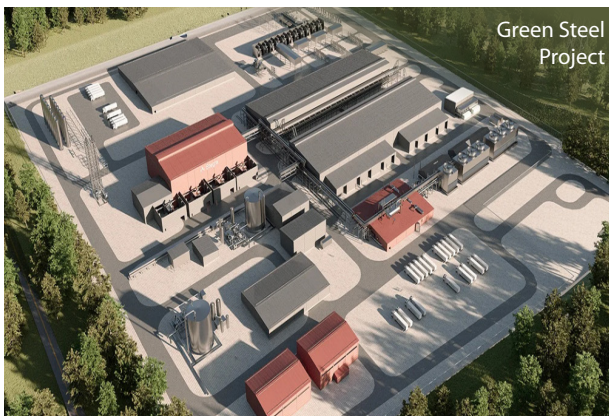
E Scrap & Cu Scrap Recycling Project



Aluminium Complex Project



Alumina Refinery Project



Green Steel Project



Pb-Zn Concentrator Project



Aluminium Recycling Facility



Adoption of GISTM

Service

Project Management Consultancy Business Review

The Project Management Consultancy Business Unit (PMCBU) of Tata Consulting Engineers continued to demonstrate its integral role in shaping India's infrastructure and industrial future. In a year marked by transformation and opportunity, the BU remained steadfast in its commitment to engineering excellence, delivering results across diverse sectors while supporting national priorities in digitalisation, sustainability, and manufacturing. PMCBU's ability to provide comprehensive Owner's Engineer and Project Consultant (OEPC™) services at scale positioned it as a trusted execution partner for high-impact initiatives in India and globally.

2024-25 Performance Highlights

27%

share in total revenue

26%

share in total acquisition

2016

workforce on 31st March 2025

27

crore worth value engineering for customer

Industry Trends and Market Outlook

The project management consultancy (PMC) landscape is evolving rapidly as infrastructure, industrial, and energy projects grow in scale and complexity. Clients are increasingly seeking end-to-end project oversight to ensure that timelines, budgets, and quality standards are consistently met. Globally and in India, there is a greater emphasis on integrated delivery, risk-managed execution, and sustainability-linked project planning.

Several forces are shaping the future of PMC. Governments and private investors alike are allocating unprecedented capital to infrastructure modernisation, energy transition, and manufacturing growth. This surge is driving demand for specialist project management services that can coordinate diverse stakeholders, manage risks, and ensure that strategic ambitions translate into on-ground success.

In India, public spending on infrastructure remains robust, supported by national programmes such as the Gati Shakti Master Plan, the Bharatmala and Sagarmala initiatives, and significant allocations for renewable energy and smart cities. Across sectors, from transportation and water to defence and manufacturing, there is a clear recognition that large-scale projects cannot afford delays or inefficiencies.

Globally, PMC services are being reshaped by digitalisation and technology adoption. Digital twins, building information modelling (BIM), and AI-enabled dashboards are transforming how projects are planned, monitored, and delivered.

Increasingly, owners expect real-time visibility into project performance, predictive analytics for early issue detection, and data-backed decision-making.

Sustainability is another major driver. More projects now embed green building standards, energy efficiency targets, and circular economy principles. PMC teams are expected to ensure that these goals are not only captured in design but actively managed through construction and commissioning.

In this dynamic environment, TCE's PMC Business Unit plays a pivotal role. As India's project pipeline grows and global opportunities expand, the demand for trusted project management partners will continue to rise and TCE is strategically positioned to meet that demand with experience, innovation, and engineering excellence.

Key Areas of Expertise

TCE's Project Management Consultancy Business Unit offers comprehensive project management services across sectors, ensuring that projects move seamlessly from concept to commissioning while adhering to cost, time, and quality objectives.

- **Integrated PMC Services:** The BU provides complete oversight of large and complex projects, including planning, procurement, scheduling, monitoring, vendor coordination, risk management, and reporting.
- **Sector Diversity:** Its expertise spans infrastructure (roads, bridges, ports, airports), industrial clusters, manufacturing plants, renewable energy projects, water systems, and cultural landmarks, among others.
- **Specialist Capabilities:** Beyond standard PMC, the unit offers Owner's Engineer and Project Consultant (OEPC™) services, combining strategic advisory with on-ground execution support. This includes preparing detailed project reports (DPRs), managing tenders, handling bid evaluations, and supporting contractors throughout the delivery phase.
- **Digital Project Management:** Leveraging BIM, digital twins, and project dashboards, the PMC BU enables real-time tracking, predictive insights, and transparent reporting. These tools reduce delays, flag risks early, and support evidence-based decisions for clients.
- **Sustainability in PMC:** The BU integrates sustainability metrics into project oversight, ensuring compliance with environmental regulations, green certification requirements, and broader ESG expectations.

Business Performance and Capabilities

FY25 was a year of strong growth and significant achievements for the PMC Business Unit.

Domestically, the BU played a key role in a range of nation-building initiatives. It provided PMC services for major urban development programmes, supporting city-level infrastructure upgrades and heritage revitalisation projects. The team oversaw the planning and execution of water, sanitation, and waste management projects that are improving quality of life for thousands of citizens.

One of the year's major highlights was TCE's PMC role in high-impact industrial infrastructure. The BU contributed to large-scale manufacturing facilities in sectors such as defence, semiconductors, and electric vehicles, helping India build the next generation of strategic and industrial capacity.

Internationally, the BU's reach continued to expand. It delivered consulting and project management support for assignments in the Middle East, Africa, and Southeast Asia. Many of these engagements involve complex, multidisciplinary projects that require seamless coordination of global vendors, regulatory frameworks, and cultural contexts.

Throughout the year, the BU demonstrated its ability to manage scale and complexity. Projects ranged from temple and cultural landmark developments to smart city programmes, from port and airport upgrades to renewable energy plants. Each required different capabilities, but the underlying approach remained consistent: combining rigorous governance, transparent reporting, and a commitment to delivering the project vision.

A strong contributor to TCE's overall performance, the PMC BU secured multiple long-term framework agreements with clients across government and private sectors, ensuring recurring work and sustained engagement.

Key Initiatives

The BU's strategic focus in FY25 revolved around strengthening capabilities, enhancing processes, and deepening digital adoption.

- **Digitalisation Drive:** BIM and digital twin technologies were embedded across more PMC projects, giving clients real-time visibility and improving planning accuracy. A major internal initiative standardised digital reporting dashboards, reducing manual effort and improving data reliability.

- **Knowledge Management:** The BU introduced structured lessons-learned workshops at the close of key projects, ensuring insights were captured and shared across teams. This initiative is already improving project planning and delivery in newer engagements.
- **Partnerships and Alliances:** To expand technical reach, the BU pursued strategic collaborations with specialist consultants, EPC contractors, and technology providers. These alliances enhance TCE's ability to offer integrated solutions in sectors like green hydrogen infrastructure and smart urban systems.
- **Skill Building:** Dedicated training programmes were rolled out for project managers and site engineers, focusing on digital tools, contract management, and stakeholder engagement. These programmes not only upskilled staff but reinforced a culture of ownership and accountability.
- **Innovation Culture:** The BU encouraged value engineering workshops on live projects, which led to cost savings and improved constructability without compromising safety or quality.
- **Larger, More Complex Projects:** The BU will scale up its participation in mega-projects across infrastructure, energy, and industrial sectors, from new airports and ports to semiconductor parks and renewable clusters.
- **Digital Expansion:** More projects will see full integration of BIM and digital twins, supported by AI-based analytics. This will allow for better forecasting, early risk detection, and greater transparency for stakeholders.
- **Sustainability as a Core Metric:** The BU will increasingly measure success not only in terms of delivery but also by how projects contribute to net-zero goals, resource efficiency, and community impact.
- **Global Footprint Growth:** TCE aims to secure more PMC assignments in Africa, the Middle East, and Southeast Asia, leveraging its reputation for delivering world-class project management services.
- **Capacity Building:** The BU will invest further in training and leadership development, ensuring that the next generation of TCE project managers are equipped for a tech-enabled, sustainability-driven future.

Future Priorities

The future for TCE's PMC Business Unit is defined by ambition and opportunity. The BU will continue to play a vital role in India's infrastructure growth story, supporting the development of urban systems, industrial hubs, and national projects of strategic importance.

Through these priorities, the PMC Business Unit will remain a trusted partner to clients, enabling them to deliver ambitious projects on time, within budget, and to the highest standards of quality and safety.

“Project management at TCE is about more than managing timelines and budgets; it is about enabling transformative outcomes. By combining technology, sustainability, and a culture of accountability, we are helping clients deliver complex projects that truly shape the future. As we expand our reach and capabilities, our focus remains clear to drive engineering excellence and enable growth across every sector we serve.”



Sathish Rao

Business Head - PMCBU

Projects 2024-25

India's First High-speed Rail Project



Mass Housing Project



Copper Smelter Project



Fintech City



Vrindavan Heritage Tower



Service

Digital and Advanced Technology Business Unit

The Digital and Advanced Technology Business Unit (DATBU), established in FY18, plays a pivotal role in driving TCE's ambition to become a future-ready technology services provider. It was envisioned as the nucleus of TCE's digital transformation efforts and today leads projects that combine precision engineering, emerging technologies, and domain insight. With a strong focus on innovation, DATBU delivers impactful solutions in areas such as asset digitisation, digital twins, AI-powered automation, high-precision remote handling systems, and the design of specialised equipment for strategic sectors. The Business Unit works across industry verticals, bringing in next-generation capabilities and building a foundation for long-term transformation through technology.

2024-25 Performance Highlights

3%

share in total revenue

4%

share in total acquisition

231

workforce on 31st March 2025

14

projects submitted for Tata Innovista

Industry Trends and Market Outlook

The digital and advanced technology landscape in engineering is expanding at a remarkable pace. Globally, industries are embracing digital transformation to reimagine how infrastructure, power, manufacturing, and process facilities are designed, built, and managed. Concepts like Industry 4.0, smart infrastructure, and AI-enabled engineering are no longer future aspirations, they are central to the way projects are being conceived and delivered today.

Owners and operators are increasingly looking for technology-led consulting partners who can provide end-to-end solutions, integrating physical assets with digital intelligence. There is a strong focus on data-driven decision-making, automation of workflows, and embedding sustainability into digital frameworks. In India, the government's focus on becoming a global digital hub is driving large-scale investments in semiconductors, battery manufacturing, electric mobility, and green hydrogen, all of which require sophisticated engineering and technology capabilities. Digital twin technology, for example, is moving from niche application to mainstream use, offering real-time insights into asset performance and lifecycle planning.

At the same time, the demand for cyber-resilient and interoperable systems is growing, with clients seeking platforms that allow seamless collaboration across geographies and disciplines.

The need for smart, connected, and sustainable solutions is shaping every project stage, from design to operation.

In this context, TCE's Digital and Advanced Technology Business Unit (DATBU) has become a key driver of transformation, helping clients unlock the power of digital tools, advanced analytics, and automation. The BU's expertise positions TCE to lead the next wave of engineering innovation, delivering smarter, faster, and greener solutions that redefine what is possible.

Key Areas of Expertise

DATBU provides a wide spectrum of digital engineering and technology services, enabling TCE to offer end-to-end solutions across sectors and industries.

- **Digital Engineering Solutions:** The BU is leading TCE's use of advanced tools like Building Information Modelling (BIM), digital twins, and 4D/5D simulation models that allow real-time visualisation, monitoring, and optimisation of projects.
- **Artificial Intelligence and Analytics:** DATBU integrates AI, machine learning, and predictive analytics into engineering workflows, helping clients reduce design iterations, simulate complex systems, and achieve higher accuracy in planning and execution.
- **Smart Infrastructure and Industry 4.0:** From smart campuses to industrial automation and connected utilities, the BU delivers IoT-enabled systems, sensor-based monitoring, and digital platforms that enhance performance and enable sustainability-linked reporting.
- **Cybersecurity and Digital Assurance:** Recognising the vulnerabilities in highly connected systems, DATBU offers solutions that protect data integrity, ensure compliance, and secure digital infrastructure for clients.
- **Specialised Consulting:** The BU also provides advisory services for digitalisation strategies, asset lifecycle management, and technology roadmaps for sectors including defence, manufacturing, and energy.

This combination of expertise allows DATBU to support clients at every stage of their digital journey, from concept to deployment, from legacy system integration to future-ready innovation.

Business Performance and Capabilities

FY25 was a landmark year for the Digital and Advanced Technology BU, reflecting growth, innovation, and expansion of services.

- **Digital Twin and BIM Leadership:** DATBU embedded digital twin frameworks into a number of marquee projects, enabling clients to visualise and manage their assets with unprecedented clarity. BIM adoption has deepened across TCE, ensuring precision and collaboration across multi-disciplinary teams.
- **AI Pilots and Proof of Concepts (PoCs):** The BU initiated several AI-based engineering solutions, from automated drawing generation and rule-based design validation to predictive analytics for asset management. These pilots are laying the foundation for scalable AI deployment across TCE's services.
- **Industry 4.0 Projects:** DATBU supported smart manufacturing ecosystems, integrating IoT, robotics, and automation into industrial facilities. This included battery gigafactories, semiconductor units, and advanced manufacturing hubs that are helping India strengthen its technology footprint.
- **Global Assignments:** The BU's reach expanded internationally, with projects in the Middle East, Europe, and Southeast Asia, where DATBU provided digital solutions for infrastructure, energy, and industrial clients.
- **Knowledge and Capability Building:** Internally, DATBU played a critical role in training TCE engineers on digital tools and platforms, creating a digitally fluent workforce ready to deliver projects of greater complexity and technological sophistication.

These achievements underline DATBU's role as not just a support function but as a growth engine for TCE, shaping how the organisation delivers value to clients today and in the future.

Key Initiatives

The BU undertook a series of strategic initiatives in FY25 to consolidate its position as a leader in engineering digitalisation.

- **Standardising Digital Workflows:** DATBU developed common BIM standards and digital protocols across TCE projects, creating consistency, efficiency, and scalability.

- **AI Strategy Development:** A roadmap for AI integration was formalised, identifying priority workflows for automation and digital intelligence across business units.
- **Innovation through Collaboration:** DATBU collaborated with academic partners and technology providers to explore advanced solutions in areas like green hydrogen modelling, smart grids, and carbon capture analytics.
- **Tool and Platform Expansion:** The BU invested in new licences and software suites for simulation, modelling, and digital engineering, widening TCE's technical toolkit.
- **Internal Digital Literacy:** A structured training programme was rolled out across the organisation, ensuring project managers, engineers, and designers are confident and capable in using digital systems and tools.
- **AI at Scale:** The BU will move from pilots to full-scale AI implementation, automating design-heavy processes and providing clients with real-time, intelligent insights.
- **Digital Twin Expansion:** Digital twin adoption will be broadened to include operations and maintenance support, enabling clients to manage assets throughout their lifecycle.
- **Smart Infrastructure Leadership:** DATBU will strengthen its capabilities in smart cities, digital campuses, and smart industrial clusters, supporting India's urban and industrial growth story.
- **Data-Driven Consulting:** The BU will develop analytics-driven consulting services to help clients leverage data for decision-making, sustainability compliance, and performance optimisation.
- **Talent and Capability Investment:** DATBU will continue to train and upskill engineers in emerging digital disciplines, creating a workforce that can deliver not only on today's needs but also tomorrow's possibilities.

These initiatives are transforming TCE's digital delivery model, ensuring that every project benefits from cutting-edge tools, smarter workflows, and future-ready capabilities.

Future Priorities

Looking ahead, DATBU is focused on scaling innovation and embedding digital excellence even deeper into TCE's DNA.

By driving these priorities, DATBU will continue to position TCE at the forefront of digital engineering, ensuring the company remains a trusted partner for clients navigating the intersection of technology, sustainability, and growth.

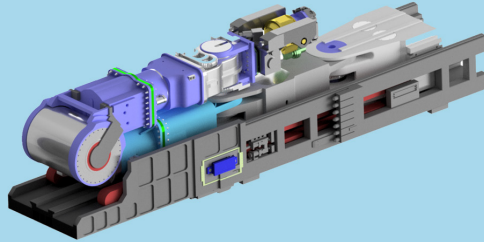
Digital transformation is not simply about adopting tools; it is about changing the way we think, design, and deliver. At TCE, the Digital and Advanced Technology Business Unit is enabling this shift, embedding intelligence and innovation into every stage of the engineering journey. Our focus is to make digital not just an enabler but a driver of engineering excellence and meaningful growth for our clients and the communities we serve.



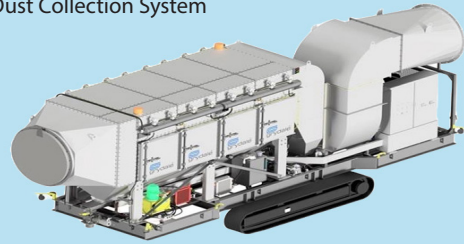
Pawan Rallabandi
Business Head - DATBU

Projects 2024-25

Blanket Assembly Transporter (BAT)



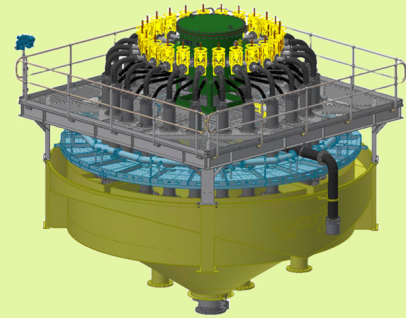
Dust Collection System



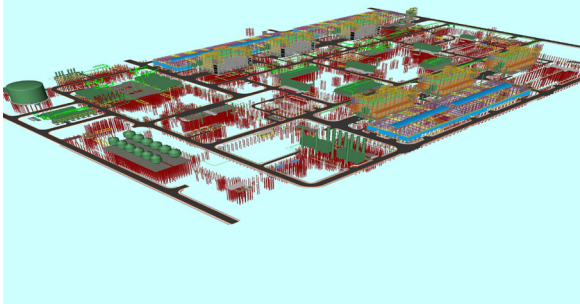
BIM Implementation for OSAT



High-Intensity Flotation Cell



Digitalisation of Cac2 Plant



BIM Implementation for Lithium-Ion Cell Battery Plant



Creation of Digital Assets for a Large Petroleum Company

Subsidiary

Ecofirst Business Review

Ecofirst Services Limited, a wholly owned subsidiary of Tata Consulting Engineers, specialises in Sustainable Integrated Designs for the built environment, using a whole-system thinking approach that brings all experts together at the design stage. The company also has strong expertise in heritage restoration, repurposing, and creating experience-based assets such as museums, heritage buildings, and experience centres. Founded with the mission to support India's transition towards a low-carbon future, Ecofirst has become a trusted partner for developers, institutions, and governments seeking environmentally responsible design and operational strategies. Its services include sustainability advisory, green building certification, master planning, energy modelling, and performance benchmarking. By harmonising design, technology, and ecology, Ecofirst creates buildings and communities that are efficient, healthy, and prepared for the future.

2024-25 Performance Highlights

101

crore total
revenue

209

crore total
acquisition

237

workforce on
31st March 2025

1000

total projects
executed to date

Industry Trends and Market Outlook

The global and Indian built-environment sector is undergoing a profound transformation as sustainability, climate responsiveness, and green infrastructure take centre stage. Worldwide, governments, corporates, and communities are demanding net-zero solutions, energy efficiency, and environmentally responsible designs that go beyond aesthetics to deliver measurable impact.

In India, policy frameworks such as the Energy Conservation Building Code (ECBC) and initiatives like Smart Cities Mission and Gati Shakti are accelerating demand for sustainable urban spaces, green buildings, and climate-resilient design. Internationally, there is a marked shift towards integrating environmental, social, and governance (ESG) priorities into infrastructure and building design, with developers and investors placing high importance on sustainability certifications and lifecycle performance.

Against this backdrop, Ecofirst, has emerged as a specialist sustainability consulting and design arm, offering innovative solutions that combine green architecture, urban design, and integrated environmental planning. Its focus on eco-sensitive and future-ready design enables TCE to serve a growing segment of clients seeking climate-aligned and responsible development.

Ecofirst operates at the intersection of engineering precision and sustainable creativity, creating buildings and spaces that are functional, beautiful, and environmentally sound, making it a pivotal contributor to TCE's mission of Engineering Excellence, Enabling Growth.

Key Areas of Expertise

Ecofirst's service portfolio is structured around three verticals: Sustainable Integrated Design (SID), Climate Change and Sustainability Services (CC&SS), and Program Management and Program Execution Management (PgM and PEM). Within these, the company delivers a comprehensive range of capabilities:

- **Sustainable Urban Development:** Master planning and urban design that balance economic growth with environmental stewardship, integrating transport, green cover, water management, and community engagement.
- **Green Building Design and Certification:** Proven expertise in LEED, GRIHA, and IGBC certifications, enabling clients to achieve high-performance standards for energy efficiency, water conservation, and occupant health.
- **Architecture and Interior Design:** Functional and aesthetic solutions for commercial, institutional, residential, and industrial spaces, with a focus on low-carbon materials and optimised resource use.
- **Energy and Environmental Solutions:** Energy modelling, daylight and shadow analysis, HVAC optimisation, flood modelling, and life cycle assessments to minimise environmental footprint while improving operational performance.
- **Heritage and Cultural Rehabilitation:** Restoring and revitalising iconic heritage sites, blending traditional design sensibilities with modern performance requirements.
- **Climate and Sustainability Advisory:** Net-zero strategies, carbon reduction programmes, ESG reporting, and climate risk assessments, enabling clients to align with global climate goals.
- **Program Management and Execution:** Managing complex, high-visibility projects such as international exhibitions, experience centres, and branded spaces, ensuring timely delivery with high design quality.

What differentiates Ecofirst is its whole-systems approach. By integrating architecture, engineering, sustainability, and programme delivery under one framework, the company ensures that every project is environmentally sound, technically robust, and socially relevant.

Business Performance and Capabilities

FY25 has been a year of significant growth and visibility for Ecofirst. The company's order book has grown more than twelvefold in five years, with revenues increasing eleven times over the same period. This growth trajectory reflects both strong domestic demand and successful penetration into niche, high-value segments.

Some of the notable achievements in FY25 include:

- **Heritage and Cultural Projects:** Restoration of historic precincts in Mumbai and beyond, ensuring cultural continuity while making them relevant for contemporary use.
- **Iconic Pavilion Design:** Designing and supporting the construction of the India Pavilion for the Osaka World Expo 2025, a project that will showcase India's innovation, diversity, and sustainability on a global platform.
- **Green Building Leadership:** Multiple projects achieving LEED Platinum and GRIHA 5-Star ratings, underscoring Ecofirst's ability to deliver world-class sustainable design.
- **Institutional and Social Infrastructure:** Educational campuses, healthcare facilities, and cultural institutions designed with embedded sustainability principles.
- **Urban and Industrial Design:** Master planning and architectural services for smart campuses, logistics hubs, and industrial clusters, aligning clients' assets with ESG goals.

Ecofirst's growth is underpinned by the Tata brand strength, TCE's engineering and delivery support, agility in responding to market trends, and an innovation-driven culture. The company's multidisciplinary team now numbers over 300 professionals, supported by TCE's processes, resources, and network.

Key Initiatives

During FY25, Ecofirst launched several strategic initiatives to reinforce its position as a leader in sustainable design and planning:

- **Scaling Green Certifications:** Expanded capabilities in LEED Platinum and GRIHA 5-Star certification processes, providing clients with a clear pathway to the highest levels of sustainability recognition.
- **Collaborative Design Thinking:** Partnered with academic institutions, international design firms, and research bodies to bring new ideas and cutting-edge methods to Indian and global projects.

- **Heritage Awareness Programmes:** Developed design frameworks and knowledge-sharing platforms for architects and engineers to understand the nuances of heritage-sensitive design.
- **Technology Integration:** Adopted advanced tools like BIM for architecture, energy modelling software, and digital visualisation platforms, ensuring efficiency and precision.
- **Talent and Capability Building:** Invested in developing a multi-disciplinary design team, combining architects, planners, sustainability specialists, and engineers.

These initiatives underline Ecofirst's ability to blend design creativity with engineering rigour, setting benchmarks for sustainable architecture and planning in India and globally.

Future Priorities

Looking ahead, Ecofirst is poised to scale its impact and expand its footprint in sustainable design.

- **Net-Zero Leadership:** Ecofirst aims to become a go-to consultant for net-zero campuses, smart precincts, and green urban solutions, supporting India's and global climate goals.
- **Cultural and Heritage Expansion:** More projects will focus on cultural and historical regeneration, linking modern design sensibilities with conservation imperatives.

- **Global Outreach:** Building on the success of the Osaka Pavilion, Ecofirst will seek opportunities in international markets for sustainability-led design projects.
- **Digital Design Excellence:** Plans to embed digital twins for buildings, smart material databases, and AI-enabled design optimisation into its workflows, offering next-generation design services.
- **Capacity Building and Partnerships:** Continue to strengthen internal talent, while collaborating with governments, private sector partners, and NGOs to deliver projects that have measurable social and environmental impact.

From a modest beginning with just 10 employees to a thriving team of over 300, Ecofirst's journey has been defined by innovation, agility, and a relentless commitment to sustainability. The company's integration within TCE has enabled it to leverage deep engineering expertise while retaining its boutique culture and creative agility.

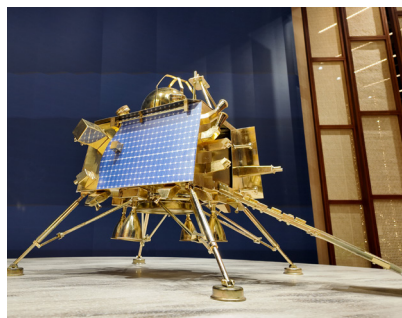
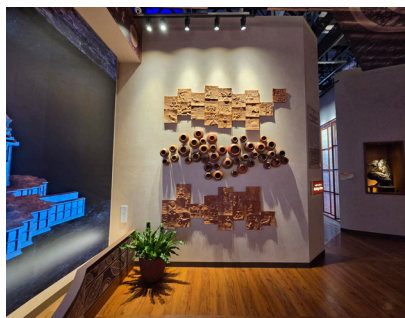
In a market where climate resilience, net-zero targets, and sustainable urbanisation are shaping the future, Ecofirst stands well-positioned to lead. By combining the creative depth of architectural design with the precision of engineering and the discipline of programme management, Ecofirst continues to make a meaningful contribution to TCE's vision of Engineering Excellence, Enabling Growth.

“Sustainability is no longer an optional element of design – it is the foundation of how we must imagine and build the spaces of tomorrow. At Ecofirst, we blend creativity with responsibility, crafting designs that are beautiful, functional, and transformative. Our work enables clients to meet their aspirations while ensuring that communities and the environment thrive alongside.”



Chitranjan Kaushik
CEO - Ecofirst

Projects 2024-25



Pioneering Sustainable Semiconductor Plant



Pioneering Sustainable Semiconductor Plant

Subsidiary

Tata Consulting Engineers USA, LLC Business Review

Tata Consulting Engineers USA, LLC, formerly CDI Engineering Solutions, is a leading engineering and consulting partner with a 75-year legacy of delivering complex, high-value projects across North America. As a wholly owned subsidiary of Tata Consulting Engineers since January 2025, the company combines deep local market expertise with global delivery capability to serve high-growth sectors such as energy transition, advanced manufacturing, industrial development, and infrastructure renewal. With eight engineering centres and a skilled workforce of over 600 professionals, Tata Consulting Engineers USA is positioned to meet evolving industry demands through innovative, sustainable, and digitally enabled solutions that create long-term value.

Performance Highlights since acquisition (Jan - Mar 2025)

221

crore
revenue

385

crore total
acquisition

600+

workforce on
31st March 2025

8

offices across
US

Industry Trends and Market Outlook

The engineering and industrial services sector in the United States is experiencing a period of rapid change and opportunity. The convergence of the energy transition, advanced manufacturing, and infrastructure renewal is reshaping demand and creating an environment where engineering partners with multidisciplinary expertise, agility, and a strong commitment to sustainability are highly sought after. Significant investment is being driven by major government-led programmes such as the Bipartisan Infrastructure Law, the Chips and Science Act, and the Inflation Reduction Act. These initiatives have accelerated projects in semiconductors, battery manufacturing, hydrogen, carbon capture, and next-generation infrastructure, strengthening America's industrial base while supporting sustainability goals.

Traditional energy and chemical sectors are also evolving as companies focus on repurposing existing assets, integrating low-carbon solutions, and adopting digital technologies to improve efficiency and meet stringent environmental regulations. Oil and gas, petrochemicals, and refining operators are increasingly pursuing asset decarbonisation strategies. Manufacturing industries are investing in cleaner processes and advanced production techniques. The semiconductor sector, in particular, is witnessing historic levels of investment as the United States seeks to strengthen domestic supply chains and reduce exposure to geopolitical risks.

Battery gigafactories and electric vehicle infrastructure are scaling rapidly to meet electrification targets, supported by parallel developments in sustainable fuel production and low-carbon technologies.

The national policy landscape has shifted following the 2025 presidential election. The new administration's emphasis on energy production and domestic manufacturing is likely to drive investment in hydrocarbons, chemicals, and industrial projects. Another emerging area of opportunity is the rapid expansion of data centres to support the growth of cloud computing and artificial intelligence, along with the related power generation and transmission infrastructure. These sectors align closely with TCE's capabilities and strategic objectives.

Key Areas of Expertise

TCE USA, brings a wide range of capabilities that complement TCE's global portfolio, enabling the company to deliver complete project solutions from concept to commissioning.

- In the field of **energy and chemicals**, the company has successfully delivered projects for oil and gas, refining, petrochemicals, and chemicals, ranging from grassroots plants to modernisation programmes. It has been actively engaged in low-carbon fuel initiatives, including early work on hydrogen and carbon capture projects, ensuring alignment with global sustainability targets and supporting clients in meeting their decarbonisation commitments.
- In **advanced manufacturing**, the company has built significant expertise in the design and delivery of battery, battery materials, and advanced semiconductor materials plants. These capabilities are critical to strengthening domestic supply chains for strategically important technologies. The company's track record in fast-track, high-value projects demonstrates its ability to manage complex designs and coordinate large multidisciplinary teams while meeting demanding schedules.
- In **industrial and infrastructure projects**, TCE USA has supported the delivery of large-scale manufacturing plants, materials processing facilities, and infrastructure upgrades. These projects are executed with a strong safety culture, adherence to U.S. regulatory standards, and a focus on delivering long-term operational reliability.
- In **emerging energy solutions**, the company has been involved in projects for green hydrogen, blue hydrogen, biofuels, ammonia as a fuel and the decarbonisation of legacy assets.

Its work in blue ammonia and large-scale carbon sequestration facilities has positioned it as a leader in delivering projects that combine innovation, sustainability, and technical depth.

- The company also offers **technical resourcing and flexible staffing solutions**, giving clients access to highly experienced engineers, designers, and specialists who can be deployed quickly and effectively across project phases. This approach enables scalability and ensures that projects benefit from both local expertise and global knowledge-sharing.

These technical strengths are supported by a culture built on the SPIRIT values of Safety and Quality, People Focused, Integrity, Respect, Innovation, and Teamwork, which align closely with TCE's own commitment to ethics, sustainability, and engineering excellence.

Business Performance and Capabilities

FY25 marked a defining year with the formal transition of CDI into Tata Consulting Engineers USA, LLC. This development significantly enhanced TCE's international presence, creating an immediate and credible footprint in the United States, one of the world's most competitive markets for engineering and consulting services.

With eight engineering centres located across the country and a team of more than 600 professionals, the company now serves as TCE's anchor in North America. It has strengthened TCE's ability to build direct relationships with leading U.S. companies, expand sector coverage to include semiconductors, battery gigafactories, and decarbonisation projects, and enhance the global talent pool through the addition of highly experienced engineers, designers, and project managers.

In FY25, revenue declined by 13 per cent compared to the previous year, largely due to the early termination of a major battery materials project that could not be replaced within the same period. This also led to a reduction in headcount from 660 to 600. However, the second half of the year saw renewed momentum, with several large sustainability-related project awards contributing to a strong bookings pipeline and an improved backlog. These developments are expected to drive revenue and profitability growth in FY2026.

Integration with TCE has already produced tangible results. Early collaborative projects in hydrogen, semiconductor manufacturing, and low-carbon fuels have demonstrated the benefits of combining TCE's global capabilities with the U.S. team's local expertise. Worksharing with the Accelerated Delivery Centre in India is enhancing delivery efficiency, optimising resource allocation, and ensuring technical excellence.

Key Initiatives

The transition into TCE USA was guided by deliberate and carefully managed initiatives to ensure alignment of people, processes, and performance.

- An integration framework was developed and implemented by a dedicated team, harmonising systems, processes, and governance structures. Human resources policies, IT platforms, and operational procedures were aligned while retaining the strengths that have underpinned the company's market success.
- Client continuity was maintained through coordinated outreach, with joint account teams engaging directly with key clients to ensure uninterrupted service. This proactive engagement also introduced clients to Tata Consulting Engineers' broader capabilities, resulting in new collaborative opportunities.
- Investments were made in capability building, including enhancements to digital engineering tools, sustainability frameworks, and project management systems. U.S. teams gained access to TCE's global knowledge platforms, while their expertise in U.S. regulatory codes and standards enriched TCE's delivery worldwide.
- The company advanced its safety culture through the rebranded SAFETY = YOU programme, establishing regional safety teams across U.S. operations and holding quarterly safety awareness meetings. Compliance with behaviour-based safety practices improved steadily throughout the year.

- The commitment to environmental, social, and governance performance was strengthened with the company's pledge to the UN Global Compact on Sustainable Development. An improved sustainability performance score from Ecovadis earned a Silver Medal, placing the company among the top fifteen per cent of awardees globally.

Future Priorities

Looking forward, TCE USA, aims to consolidate its position as a growth engine for TCE and as a centre of engineering excellence serving the U.S. and beyond.

- Advanced manufacturing will remain a key growth area, with the company supporting semiconductor fabrication facilities, outsourced semiconductor assembly and testing plants, and battery gigafactories.
- Cross-border collaboration will be expanded through the creation of integrated delivery teams across India, the United States, and other regions, ensuring seamless, cost-effective, and technically rigorous services for clients.
- The adoption of digital engineering tools such as BIM and digital twin will be accelerated, and sustainability benchmarks will be embedded into every project to deliver value that goes beyond compliance.
- Strengthening long-term client partnerships across sectors such as petrochemicals, semiconductors, and critical infrastructure will be central to the company's approach, positioning Tata Consulting Engineers USA, LLC as a trusted partner for high-impact, transformative projects.

“The transformation of CDI into Tata Consulting Engineers USA, LLC is more than an expansion of our footprint; it is the uniting of expertise, cultures, and ambitions. This integration gives us a platform to deliver innovative and sustainable solutions to clients across North America and beyond, while enriching TCE's global capabilities. Together, we are not just building projects – we are creating pathways for growth and engineering a better tomorrow.”



Steve Karlovic

President & CEO - TCE USA

Projects 2024-25

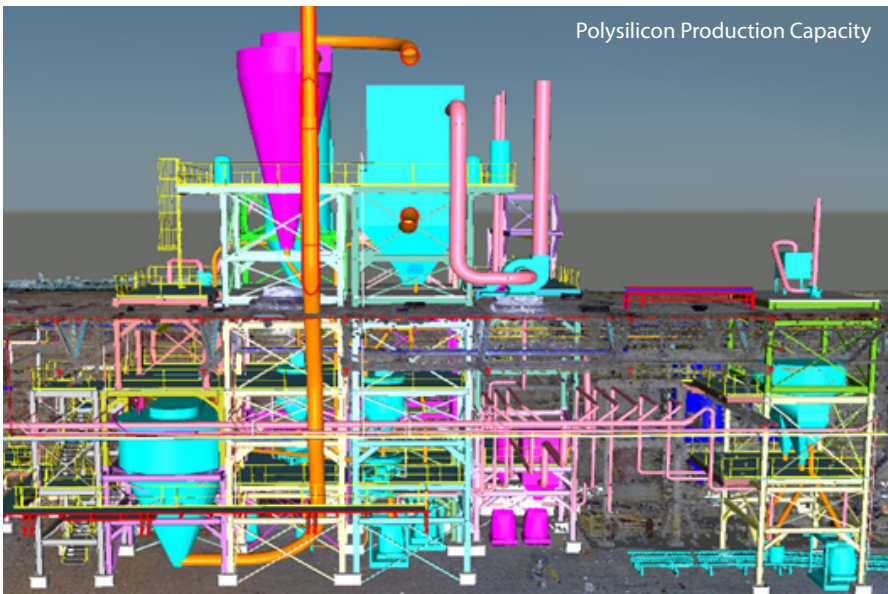
18.6 Hectare Under-roof 40GWh Battery Plant



CO₂ Compression & Dehydration Project



Polysilicon Production Capacity



\$400M Semiconductor Material Plant



Empowering People to Engineer the Future

At Tata Consulting Engineers (TCE), our people are at the heart of everything we do. As the company navigates complex challenges and seizes emerging opportunities across sectors, our focus remains steadfast on building a workplace where talent thrives, innovation flourishes, and careers are purpose-driven. Our people strategy is anchored in a belief that engineering excellence cannot be sustained without empowered individuals. Whether it is digital transformation, business expansion, or sustainability leadership, our human capital is the catalyst that drives performance, fosters resilience, and shapes a future-ready organisation. In FY25, we deepened our efforts to enhance the employee experience, drive inclusive growth, and equip our workforce with the right tools, skills, and mindset to lead change.

2025 Performance Highlights

583

graduate Engineers
onboarded through YEDP

133

diploma Trainees
trained under ADePT

09

interns with Disabilities
Absorbed into full-time roles

800

employees participated in
sports and wellness initiatives

240+

employees participated in sports
and wellness initiatives

40

interns onboarded through
the ACE Hackathon

The HR strategy at TCE is built around four pillars – attracting and nurturing talent, enabling continuous learning, fostering a culture of inclusivity and engagement, and creating strong systems and processes to support employee wellbeing and performance. This year, each of these pillars was strengthened through a combination of thoughtful policies, structured programmes, and innovative initiatives.

Our commitment to people is guided by the belief that engineering excellence is only possible when we invest in those who design, innovate, and deliver. Whether it is a young graduate beginning their career journey, a mid level manager seeking leadership opportunities, or an experienced professional driving complex projects, our focus remains on empowering individuals at every stage of their professional life.

Building a Talent Pipeline for the Future

The year saw a renewed emphasis on expanding and deepening our talent pool to meet the needs of a rapidly evolving engineering landscape. TCE welcomed over 600 young engineers through the Young Engineers Development Programme (YEDP) 2024, selected from more than 200 universities across India. These young professionals represent a new generation of problem solvers, innovators and future leaders. A quarter of this intake were women, reflecting our ongoing commitment to improving gender representation in engineering roles.

The YEDP is designed as a structured two year journey that combines formal learning, mentorship, on the job exposure and cross functional projects. Participants are placed across six delivery centres and are exposed to diverse industry sectors, allowing them to gain both breadth and depth in their experience. By giving these engineers early exposure to complex, real world challenges, we are building a pipeline of professionals who are ready to contribute to TCE's vision from day one.

Lateral hiring also remained strong, particularly in niche areas such as digital engineering, sustainability solutions, and emerging technology domains like hydrogen, renewable energy and advanced manufacturing. Our focus on targeted recruitment ensured that we attracted individuals with specialised expertise, strengthening the organisation's ability to take on projects of increasing scale and complexity.

Learning, Upskilling and Knowledge Sharing

A culture of continuous learning remains a hallmark of TCE. FY25 saw an expansion of structured learning programmes that help employees enhance their skills and stay ahead of industry trends. Our Digital Learning Academy provided on demand access to hundreds of technical, behavioural and leadership modules, ensuring that learning is self paced and flexible.

Formal training hours reached well over 60,000 person hours during the year, spanning multiple formats, classroom sessions, digital learning, experiential workshops and project based assignments. Technical learning focused on design and engineering excellence across our core sectors of infrastructure, power, hydrocarbons and chemicals, and mining and metallurgy. Specialised sessions on sustainability, energy transition and digital engineering were also prioritised to align with emerging client needs.

Leadership development was another key focus area this year with the launch of Program Shikhar, a rigorous 24-month flagship initiative designed to prepare high-performing employees in the E5 to E7 grade for future leadership roles. The programme sets out an intensive development journey, beginning with comprehensive leadership and stretch potential assessments to map individual strengths and opportunities. Participants will receive structured feedback and take part in curated management development programmes covering strategic thinking, stakeholder engagement, innovation leadership, and business acumen. The journey will also include challenging rotational assignments across business units, delivery centres, and functions, giving participants a broader organisational perspective.

TCE's long standing culture of knowledge sharing was further enhanced through forums like TechConnect and TechPride Challenge. TechConnect sessions allowed experts from different disciplines to share insights and discuss case studies, while TechPride provided a platform for employees to showcase value engineering solutions they had developed on projects. Together, these platforms strengthened the spirit of collaboration and innovation across the organisation.

Fostering Engagement and Inclusion

Employee engagement is essential to building a workplace where individuals feel connected, motivated and valued. In FY25, we introduced several new initiatives to create meaningful experiences for our people. Our Values Awards campaign celebrated employees who embody TCE's five core values – Customer Satisfaction and Loyalty, Technical Excellence with Professional Ethics, Responsibility to Society, Employee Dignity and Self Respect, and Organisational and Individual Growth. Nominated by peers and leaders, the awardees were recognised as the torch bearers of TCE's culture. Their stories were shared internally, inspiring others to live the values in their day to day work.

Diversity, Equity and Inclusion (DEI) remained a key priority. We continued to increase representation of women in engineering and leadership roles through targeted hiring, mentoring, and return to work initiatives for women professionals. Plans were also set in motion for a branded DEI programme to consolidate and strengthen our efforts in this space. Employee wellbeing and engagement extended beyond traditional HR programmes. Initiatives such as Happiness Week and Ethics Week offered opportunities for reflection, learning and connection. These events combined light hearted activities with important themes, reminding employees that their wellbeing and sense of purpose matter as much as their performance.

Systems & Processes for a Stronger Workforce

Behind every successful HR strategy lies strong systems and processes. FY25 saw the phased rollout of Symphony, TCE's new HR Management System (HRMS), which brings together existing HR processes into a seamless, integrated platform. Phase 1, completed this year, consolidated core modules such as leave and attendance, workforce planning, recruitment, training and development, onboarding, and exit management, ensuring these functions now operate in a unified, user-friendly environment. This integration not only simplifies access but also enhances efficiency and enables richer, data-driven insights for better decision-making.

Phase 2, planned for the coming year, will build on this foundation by incorporating advanced elements of the employee lifecycle, including succession planning and enhanced talent management, further strengthening TCE's ability to develop and retain future leaders.

Our performance management framework also evolved during the year. A greater focus on goal clarity, continuous feedback, and development conversations ensured that appraisals were not just about ratings, but about growth. Managers were trained to hold meaningful discussions that help employees align personal ambitions with organisational objectives. Compliance with labour regulations and workplace standards remained non negotiable. Regular audits and reviews were carried out to ensure that TCE meets and exceeds statutory requirements, while reinforcing our reputation as an employer of choice.

Workplace Safety and Respect

A safe and respectful workplace is at the core of our HR agenda. As highlighted in the Ethics section of this report, TCE maintained its position among India's Top 25 Safest Workplaces for the third year running. The Prevention of Sexual Harassment (POSH) framework remained active and visible, with training programmes, workshops and open forums ensuring awareness across the organisation. The POSH policy at TCE is gender neutral, reflecting our belief that safety and respect are universal rights. The Internal Complaints Committee (ICC) continues to provide a confidential and sensitive channel for addressing concerns. In FY25, no POSH complaints were reported, underscoring the effectiveness of our systems and the trust employees place in them.

Celebrating Culture and Community

Beyond policies and programmes, what truly shapes TCE's workplace is its culture, a culture of engineering excellence, collaboration and purpose.

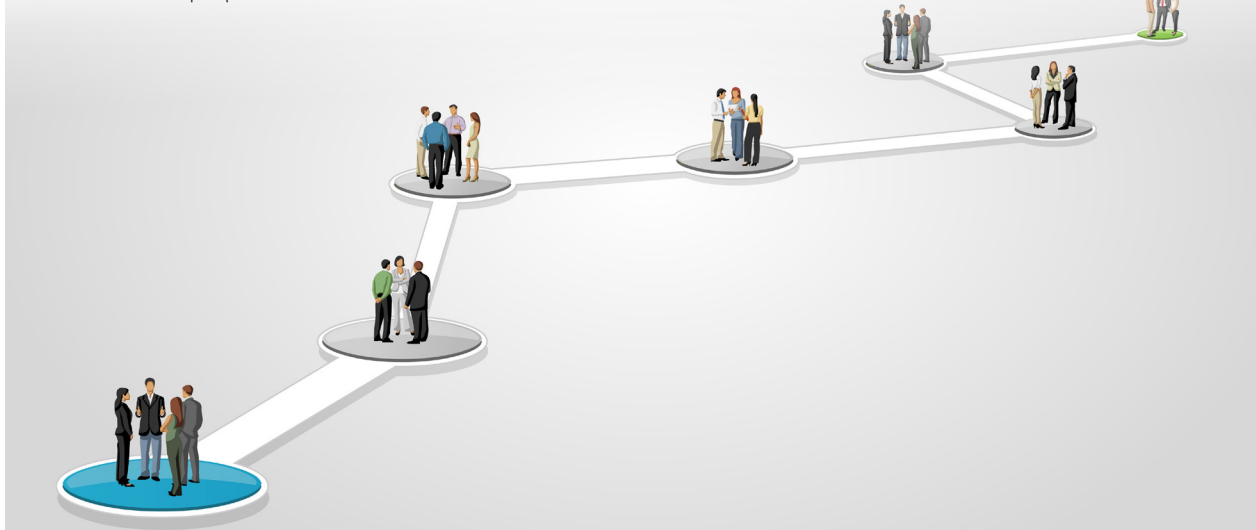
FY25 was marked by events and celebrations that brought employees together, fostering a sense of belonging and shared identity.

TCE Day, celebrated with the theme Engineering the Future, Innovating Today, served as a platform to recognise contributions, reflect on achievements and look ahead to new possibilities. CSR initiatives under TCEndeavour were also closely linked with employee participation, giving our people opportunities to contribute to society through volunteering and outreach. Festivals, cultural events and milestone celebrations created moments of joy and connection across delivery centres. Together, these initiatives reminded us that an organisation's strength lies as much in its community spirit as in its technical capabilities.

Looking Ahead: Our People Agenda for FY26

As TCE looks to the future, our people strategy will continue to evolve. The focus will remain on attracting the best talent, particularly in high growth areas such as digital engineering, sustainability and new energy. At the same time, we will continue to invest in upskilling and leadership development, ensuring that our workforce is future ready. Programmes like YEDP and Shikhar will be expanded and refined, providing even more structured pathways for career progression. DEI efforts will gain further momentum, with targeted campaigns and branded initiatives designed to create measurable impact.

Symphony will be enhanced with new modules, making HR processes even more seamless and data rich. The focus on engagement, wellbeing and culture will continue, with a renewed emphasis on mental health awareness and flexible working solutions. Through these efforts, TCE will continue to build an organisation where employees are empowered to engineer the future; an organisation where talent, values and vision come together to deliver engineering excellence and enable growth.



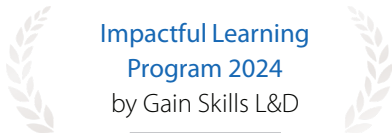
HR at a Glance



HR in Pictures



Company Awards



**Impactful Learning
Program 2024**
by Gain Skills L&D



**India's Infra Leaders
Award 2024**
by Times Now



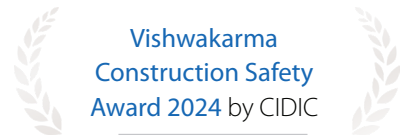
**Industry Academia
Partnership Award 2024**
by CII



**Industry Excellence
Award 2024**
by IEI



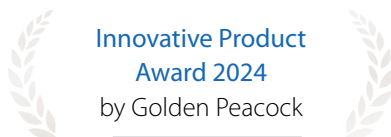
**HR Excellence in CSR
Award 2024**
by CHRO forum



**Vishwakarma
Construction Safety
Award 2024** by CIDIC



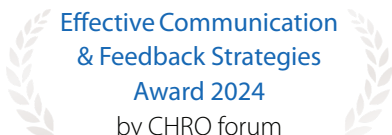
**Max Volunteering Hours
Medium Award 2024**
by Tata Sons



**Innovative Product
Award 2024**
by Golden Peacock



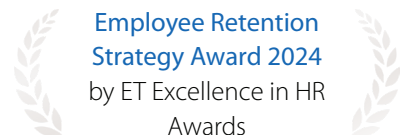
**TAAP Adoption Award
2024**
by Tata Sons



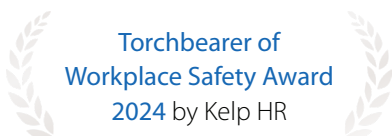
**Effective Communication
& Feedback Strategies
Award 2024**
by CHRO forum



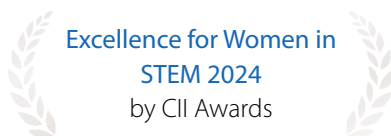
**POSH Top 25 Safest
Workplaces in India
Award 2024**
by Kelp HR



**Employee Retention
Strategy Award 2024**
by ET Excellence in HR
Awards



**Torchbearer of
Workplace Safety Award
2024** by Kelp HR



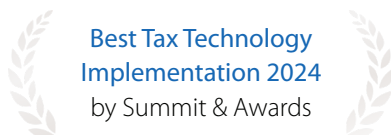
**Excellence for Women in
STEM 2024**
by CII Awards



**Making Impact Award
India 2024**
by Autodesk



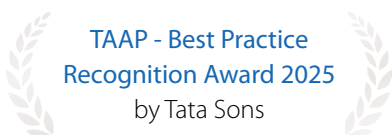
**Tata Innovista Award
2024**
by Tata Sons



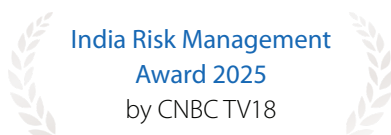
**Best Tax Technology
Implementation 2024**
by Summit & Awards



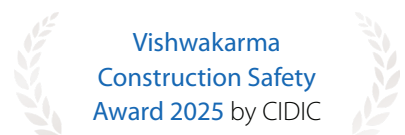
**Wow Workplace Award
2025**
by Jombay



**TAAP - Best Practice
Recognition Award 2025**
by Tata Sons



**India Risk Management
Award 2025**
by CNBC TV18



**Vishwakarma
Construction Safety
Award 2025** by CIDIC

Engineering Life, Enabling Impact

At Tata Consulting Engineers (TCE), Corporate Social Responsibility (CSR) is more than a statutory requirement; it is a reflection of our values, our commitment to society, and our responsibility as a Tata company. Guided by the Tata ethos of “Leadership with Trust,” we strive to create a measurable and lasting impact in the communities we serve. Our CSR philosophy is built around the idea of ‘Engineering Life,’ fostering inclusive development, empowering underserved communities, and contributing meaningfully to national development priorities while aligning with global goals, such as the United Nations Sustainable Development Goals (UN SDGs).

TCEndeavour

CSR INITIATIVE OF TATA CONSULTING ENGINEERS LIMITED

Our CSR strategy is driven by three core principles: leveraging our engineering expertise, ensuring inclusive participation, and focusing on long-term, sustainable outcomes. We actively focus on strengthening four thematic areas: education, sustainable livelihoods, healthcare, and infrastructure development, while also contributing to disaster response, environment preservation, and cutting-edge research through partnerships with academia. Through these efforts, we aim to touch lives, build resilience, and help engineer a better tomorrow.

TCEndeavour: Driving Holistic Impact

Our flagship initiative, TCEndeavour, encapsulates our commitment to making a difference. It represents a structured, long-term approach to CSR, aimed at addressing some of society’s most pressing challenges through targeted interventions. By harnessing our technical strengths and nurturing collaborative partnerships.

TCEndeavour delivers impact across grassroots education, skilling, healthcare, and disaster resilience, especially for the underprivileged and marginalised communities, including Scheduled Castes, Scheduled Tribes, and Persons with Disabilities (PwDs). All programmes under TCEndeavour are aligned to national priorities and mapped to eight relevant UN SDGs.

Our Focus Areas

- **Education** remains one of the most powerful tools for social transformation. TCE’s efforts under this pillar include improving STEM (Science, Technology, Engineering, and Mathematics) education through activity-based learning, equipping teachers with inclusive pedagogical tools, and supporting education for children with special needs. In FY25, over 34,000 lives were touched through initiatives like Project Vigyaan, which brought hands-on science learning to students in Navi Mumbai Municipal Corporation schools, including 100 children with special needs. Teachers were trained in inclusive teaching methods, and STEM corners were set up in schools to foster curiosity and creativity.
- **Sustainable Livelihoods:** Through Project Utkarsh, our flagship employability initiative, TCE addresses the gap between academic training and industry requirements for diploma engineering students, especially from marginalised communities. In FY25, over 24,000 lives were positively impacted through training, faculty development, career fairs, and inclusive internships for PwDs. The initiative helped develop job-ready design engineering skills and directly led to full-time employment for all nine PwD interns.

- **Healthcare:** Access to quality healthcare is essential for a thriving society. In disaster-affected Wayanad, Kerala, TCE is leading the design of a Trauma Care Centre that will serve 40,000 people annually, providing critical medical services in a region prone to natural disasters. In Navi Mumbai, health camps and webinars on women's health were conducted as part of our broader employee wellness and community outreach programmes.
- **Infrastructure Development and Disaster Response:** TCE's technical expertise was put to impactful use in rebuilding schools in cyclone-affected Odisha and flood-hit Hyderabad. As part of the One Tata for Disaster Response initiative, we supported the reconstruction and handover of four resilient school buildings designed to withstand extreme weather conditions, benefiting over 3,600 children. These efforts contribute to long-term community resilience and ensure continued access to education in vulnerable regions.

Research and Innovation for Sustainability

Our CSR vision also extends to supporting research in sustainable and transformative technologies. In FY25, TCE continued to fund research partnerships with reputed institutions including IIT Bombay, NIAS, NCL, and IISc, covering areas such as carbon capture, green hydrogen, e-fuels, artificial photosynthesis, 3D concrete printing, and sustainable data centre cooling. These cutting-edge projects are designed to enable low-carbon technologies for hard-to-abate sectors and create scalable solutions for India's clean energy transition.

Affirmative Action and Inclusion

TCE aligns its CSR focus with the Tata Affirmative Action (AA) framework. Through initiatives like Vigyaan, Utkarsh, and the Open Door Internship Programme, TCE works to close the opportunity divide for Scheduled Castes, Scheduled Tribes, and PwDs.

We also support the INCLUDE programme to build an inclusive and accessible ecosystem both within the workplace and across the communities we engage with. Training sessions, inclusive pedagogy, and infrastructure support ensure our impact is meaningful and widespread.

Volunteering and Employee Participation

TCE believes in empowering its people to become agents of change. In FY25, over 4,000 employees contributed more than 20,000 hours through structured volunteering initiatives including Tata Volunteering Weeks (TVW) and ProEngage.

Volunteering efforts ranged from skill-based mentoring and education outreach to sustainability campaigns and community clean-up drives. These initiatives helped touch more than 10,000 lives and significantly deepened our employee engagement while enhancing community bonds.

Monitoring, Governance, and Impact Evaluation

TCE's CSR framework is built on strong governance, transparency, and accountability. The CSR Committee of the Board, chaired by Dr Alka Mittal, plays a key role in policy formulation, budget approvals, monitoring, and outcome evaluation. Regular reviews, impact assessments, and third-party evaluations ensure projects are aligned with desired goals. Our CSR policy, aligned with Section 135 of the Companies Act, 2013.

In FY25, our CSR partnerships included collaborations with reputable organisations such as IIT Bombay, IISc, NIAS, CSIR-NCL, FSID, NMMC, and others. All project partners are selected based on their domain expertise and adherence to ethical practices. Three CSR Committee meetings were held in FY25, with 100% attendance, reinforcing our commitment to sound governance.

Financial Commitment

TCE approved a CSR budget of ₹ 4.61 crore for FY25. As of 31 March 2025, the company had spent ₹ 4.40 crore, with the remaining amount transferred to a separate unspent CSR account in compliance with statutory requirements. An additional carry forward of ₹ 23.93 lakh from FY24 was fully utilised in projects like Utkarshand Vigyaan, ensuring optimal use of allocated resources for long-term benefits.

Looking Ahead

As we reflect on the past year's achievements, we remain inspired by the communities we serve and motivated to do more. Our focus in the coming year will be on deepening impact in existing initiatives while expanding into areas such as sustainability education, climate resilience, and inclusive technology. We will also continue to invest in partnerships with academia and civil society organisations to scale up our research-based interventions for climate action and social equity. CSR is not just a department at TCE; it is a shared purpose. It connects our engineering capabilities with our moral compass, ensuring we grow responsibly and inclusively. Through TCEndavour and other initiatives, we will continue to engineer change that is impactful, inclusive, and future-ready.

CSR at a Glance

01 Our Focus Areas



Education



Livelihoods



Healthcare



Infrastructure

Disaster
ResponseSustainability
Research

02 Impact at a Glance

90,000+

Total Lives
Touched

20,000+

Volunteering
Hours

4,000+

Volunteers
Engaged

25+

Projects
Implemented

30+

PhD / MTech Scholars
Mentored

3600+

Children Benefited
(Education Infra)

6+

Schools Rebuilt
(Disaster Zones)

03 Flagship Programmes & Milestones

Project Vigyaan

- 34,277 students impacted
- 100 CwSN students supported
- 100 mainstream teachers trained in inclusive STEM
- 7 science exhibitions conducted

Disaster Response

- Odisha & Hyderabad Schools: 6 schools rebuilt
- Wayanad Trauma Centre: Design underway to benefit 40,000 annually

Project Utkarsh

- 24,272 students and faculty touched
- 47 diploma students trained in design engineering
- 118 faculty trained across 58 colleges
- 9 PwD interns offered full-time roles

Research Collaborations

- Institutes: IIT Bombay, IAS, IISc, NCL

04 Volunteering Impact

Tata Volunteering Week & ProEngage

10,000+

Hours via
TVW 22 & 23

10,000+

Lives
Impacted

4.55

Per Capita
Volunteering
Hours

05 Governance & Budget

₹ 4.61Cr

CSR Budget
Approved

₹ 4.40 Cr

CSR Spend (FY25)

₹ 20.65 lakh

Unspent Amount
(Transferred as per law)

3

CSR Committee
Meetings Held
(100% Attendance)

CSR in Pictures



Corporate Information

Corporate Office

Unit No. NB 1502 & SB 1501, 15th Floor, Empire Tower, Cloud City Campus, Opp. Reliable Tech Park, Thane-Belapur Road, Airoli, Navi Mumbai - 400 708

Registered Office

First Floor, Elphinstone Building , 10, Veer Nariman Road, Mumbai 400 001, India.

Domestic Offices

Mumbai

Unit No. NB 1502 & SB 1501, 15th Floor, Empire Tower, Cloud City Campus, Opp. Reliable Tech Park, Thane-Belapur Road, Airoli, Navi Mumbai - 400 708

Pune

Sai Trinity, Central Wing, S. No. 146/1/28, Pashan, Pune - 411 021

Delhi (NCR Region)

Green Boulevard, Ground Floor, Tower B & C, Plot no - 89A, Sector 62, Noida - 201 301

Vadodara

2nd Floor, Trisha Space, Besides Croma Store, L&T Circle, Veer Nagar Karelibagh, Vadodara, Gujarat - 390018

Jamshedpur

Pipeline Road, Sakchi, Jamshedpur - 831 001

Kolkata

JC 30/A; Sector III, Salt Lake, Kolkata - 700 106

Bengaluru

71, Cunningham Road, Vasanth Nagar, Bengaluru, Karnataka 560051

Subsidiaries Offices

Ecofirst Services Limited

Unit No. NB 1502 & SB 1501, 15th Floor, Empire Tower Cloud City Campus, Opp. Reliable Tech Park, Thane-Belapur Road Airoli, Navi Mumbai - 400 708

TCE Delaware Corp

850 New Burton Rd
Dover, DE 19904, USA

Tata Consulting Engineers USA, LLC

11200 Richmond Ave, Suite 500
Houston, TX. 77082, USA

Tata Engineering Consultants Saudi Arabia Company

8259, Unit no. 44. Al Lualua Road,
Sudayr Dist Office No. 12B, Palm Centre,
Al-Fanateer AL JUBAIL
4858 – 35811, Kingdom of
Saudi Arabia

Overseas Offices

United Kingdom Branch Office

18 Grosvenor Place, London, SW1X
7HS, United Kingdom

France Office

Tata Consulting Engineers, 23
Avenue Mac Mahon, 75017,
Paris 17

Kenya Branch – Liasion Office

D-8 Krishna Centre, Woodvale Grove
Road, P. O. Box 13746 00800, Westlands
Nairobi Kenya

Nepal Branch – Liasion Office

Ward 10 Gangapdevi Marg,
Budhnagar, Kathmandu, Nepal

US-New Jersey Branch Office

Suite 301, 100 Enterprise Drive,
Rockaway, New Jersey - 07866, USA

Saudi Arabia Office

Tata Engineering Consultants Saudi
Arabia Company, 8259, Unit no. 44. Al
Lualua Road Sudayr Dist, Office No. 12B,
Palm Centre, Al-Fanateer, AL JUBAIL
4858 – 35811, Kingdom of Saudi Arabia

Abu Dhabi Branch Office

P. O. Box 62990, Abu Dhabi, United
Arab Emirates (UAE)

The Netherlands Branch Office

C/o Vistra Group Management
Limited, Delflandlaan 1, 1062EA
Amsterdam

Project Offices

Gujarat

Office no. 303, IT Tower-2, Infocity,
Gandhinagar - 382009

France Office

Tata Consulting Engineers, 23
Avenue Mac Mahon, 75017, Paris 17

Kenya Branch – Liasion Office

D-8 Krishna Centre, Woodvale Grove
Road, P. O. Box 13746 00800, Westlands
Nairobi Kenya

Our Presence





TATA CONSULTING ENGINEERS

ENGINEERING A BETTER TOMORROW™

Corporate Office

15th Floor, Empire Tower, Cloud City Campus, Opp. Reliable Tech Park,
Thane-Belapur Road, Airoli, Navi Mumbai - 400 708

Registered Office

First Floor, Elphinstone Building, 10 Veer Nariman Road, Mumbai 400 001
tceconnect@tataconsultingengineers.com | www.tataconsultingengineers.com

JUNE 2025

